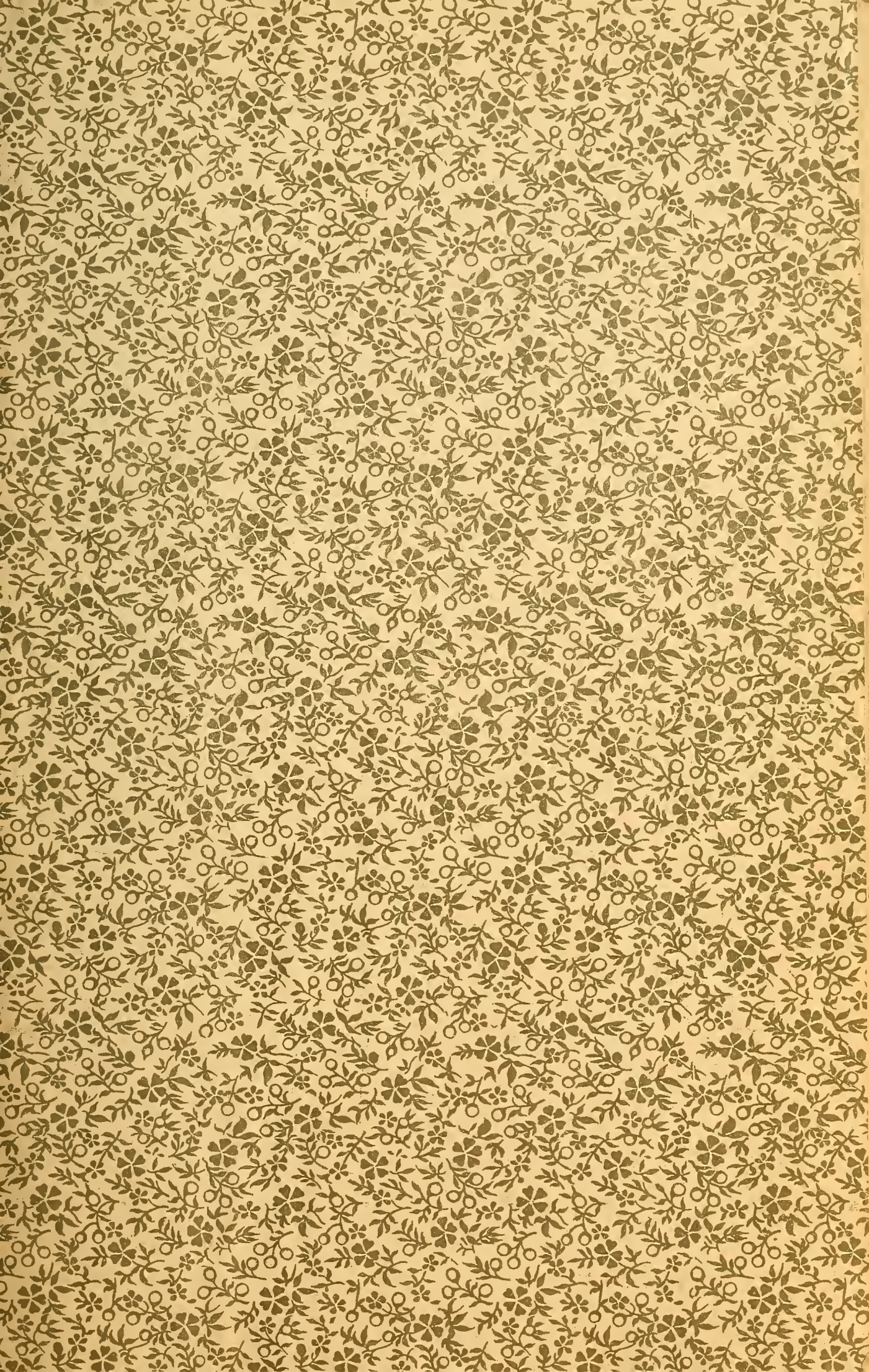










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CITY DOCUMENTS

OF THE

CITY OF LOWELL

MASSACHUSETTS

FOR THE

YEAR 1919-1920



LOWELL, MASS.

BUCKLAND PRINTING CO.  72-74 MIDDLE STREET

1919

EXTRACT FROM THE ORDINANCES OF LOWELL

CHAPTER VIII—CITY DOCUMENTS.

Section 5. All City Documents (except the Rules and Regulations for the Government of the Police and Fire Departments) shall be printed in pamphlet form of the size of the Annual Report of the School Committee.

Section 6. All City Documents shall be bound together in one volume, under the direction of the City Clerk, and three or more copies shall be placed in the City Library, and one copy in the library of the Middlesex Mechanics' Association, one copy shall be sent to each City of the Commonwealth, to the library of the Harvard College, the Public Library of Boston, the State Library, the Smithsonian Institute at Washington, and the Old Residents' Historical Association of Lowell.

CONTENTS

1. Ninety-fourth Annual Report of the School Committee of Lowell, together with Fifty-sixth Annual Report of Superintendent of Schools, 1919.
2. Auditor's Eight-fourth Annual Report of the Receipts and Expenditures of the City of Lowell, also General Information for the financial year ending December 31, 1919.
3. Eighth Annual Report of the Commissioner of Water Works, and the Reports of the Superintendent of Water Works and the City Engineer, for the year ending December 31, 1919.
4. Reports of the Births, Marriages and Deaths, 1919.
5. Report of the Board of Health, 1919.

6. Eighth Annual Report of Fire Commissioner, 1919.
7. Park Commissioner Sixteenth Annual Report, ending December 31, 1919.
8. Reports of the Trustees of the City Library for 1919.
9. Report of the City Solicitor for the year ending December 1919.
10. List of Jurors for the year 1920.
11. Annual Report of the Police Department, December 31, 1919.

Ninety=Fourth Annual Report
OF THE
SCHOOL COMMITTEE
OF THE
CITY OF LOWELL
AND THE
Fifty=Sixth Annual Report
OF THE
Superintendent of Public Schools
1919



LOWELL, MASS.
F. A. M. TOBIN'S PRINTERY

CITY OF LOWELL

Office of the School Committee,

Lowell, Mass., May 28, 1920.

At a meeting of the School Committee, held on this date, it was voted to adopt the report of the Superintendent of Schools for 1919 as the report of the School Committee for that year and to authorize the printing of the report.

In accordance with this vote the report is herewith submitted.

HUGH J. MOLLOY,

Secretary.

ORGANIZATION
OF THE
School Committee
1919

RICHARD BRABROOK WALSH, Chairman

HUGH J. MOLLOY, Secretary

MEMBERS

	Term Expires
WILLIAM L. CROWLEY	1920
25 Sarah Ave.	
JULIAN B. KEYES	1920
65 Fairmount St.	
GEN. GARDNER W. PEARSON	1920
59 Clitheroe St.	
WILLIAM R. THOMPSON, D. M. D.	1919
68 Grove St.	
RICHARD BRABROOK WALSH	1919
223 Parkview Ave.	

REGULAR MEETINGS OF THE SCHOOL COMMITTEE

January 28	May 27	September 30
February 25	June 24	October 28
March 25	July 29	November 25
April 29	August 26	December 30

ADMINISTRATION**Superintendent of Public Schools**

HUGH J. MOLLOY

Office in City Hall

Office Hours—One Hour after the forenoon session of the schools; at other times, including Saturdays, by appointment.

Clerk

FANNIE A. THOMPSON

Supervisor of Primary Grades

ALICE T. LEE

Office Hours—Mondays, Wednesdays and Fridays 3.45 to 4.45 p. m., at office of the Superintendent of Schools.

Supervisor of Janitors

WILLIAM F. THORNTON

Office in City Hall Third Floor

Office Hours—12 m. to 1 p. m.

Supply Agent

HENRY L. WILLIAMS

Office in School Supply Room, City Hall

Clerk

LEDA C. LAMONTAGNE

Stock-keeper in School Supply Department

FRED JOHNSTON

Clerk in Attendance Office

STELLA G. MALONEY

Attendance Officers

William F. Thornton, Camille Roussin, Henry L. Williams, John J. Walker,
Office—Third Floor of City Hall

Office Hours:

9 to 4 o'clock daily except Saturday; Saturday 9 to 1 o'clock

ORGANIZATION

OF THE

School Committee

1920

THOMAS B. DELANEY, Chairman
 HUGH J. MOLLOY, Secretary

MEMBERS

	Term Expires
*WILLIAM L. CROWLEY	1920
Res. 25 Sarah Ave.	Tel. 3125-W
Bus. 321 Hildreth Bldg.	
THOMAS B. DELANEY	1921
Res. 92 West St.	Tel. 4942
JULIAN B. KEYES	1920
Res. 65 Fairmount St.	Tel. 3578
Bus. 204 Merrimack St.	
JAMES E. MARKHAM	1921
Res. 12 Burns St.	Tel. 5352-M
Bus. 53 Central St.	
GEN. GARDNER W. PEARSON	1920
Res. 59 Clitheroe St.	Tel. 2479
Bus. 416 Hildreth Bldg.	
**JAMES H. ROONEY, D. M. D.	1920
Res. 238 Pine St.	Tel. 4033-M
Bus. 6 Strand Bldg.	

*Died January 29, 1920.

**Elected to fill unexpired term of Wm. L. Crowley.

REGULAR MEETINGS OF THE SCHOOL COMMITTEE

January 27	May 25	September 28
February 24	June 29	October 26
March 30	July 27	November 30
April 27	August 31	December 28

ADMINISTRATION**Superintendent of Public Schools**

HUGH J. MOLLOY

Office in City Hall

Office Tel. 2728

Home Tel. 3121

Office Hours—One hour after the forenoon session of the schools: at other times, including Saturdays, by appointment.

Clerk

FANNIE A. THOMPSON

Home Tel. 1066

Business Agent

HENRY L. WILLIAMS

Office Tel. 2727

Home Tel. 2714

Clerk in Business Agent's Office

LEDA C. LAMONTAGNE

Office in School Supply Room, City Hall

Stock-keeper

FREDERICK JOHNSTON

Office hours for Supply Room

8 a. m. to 5 p. m.

Supervisor of Janitors

WILLIAM F. THORNTON

Office Tel. 3960

Home Tel. 3423

Attendance Officers

William F. Thornton, Camille Roussin, John J. Walker, Mary H. Downey

Clerk in Attendance Office

STELLA G. MOLONEY

Office—Third Floor of City Hall

Office Hours—9 to 4 o'clock daily, except Saturday; Saturday 9 to 12.30 o'clock.

REPORT OF THE Superintendent of Schools

Office of the Superintendent of Schools.

Lowell, Mass., 1920.

To the School Committee of Lowell:

The following report, for the year 1919, is respectfully submitted.

SUMMARY OF STATISTICS

Valuation of City	\$107,315,763.00
Valuation of school property	2,113,275.00
Rate of taxation (\$26.00 per \$1,000)	
Expenditures for Day Schools	630,061.00
Expenditures for Evening Schools and Americanization.....	21,767.00
Day School expenditures to total valuation	.587 per cent.
Day and Evening School expenditures to total valuation....	.607 per cent.
Population by census of 1915	107,978
*Number of polls	29,257
Number of public day schools	62
One high, thirteen grammar, thirty-two primary, two mixed, fourteen kindergartens.	
Number of school buildings	51
Occupied by public schools, 49; occupied by vocational schools, 2	
Elected teachers, Dec. 31; on leave, 8; in service, 347; total, 355.	
Permanent substitutes	10
Subdivisions of Elected Teachers in service: High, 19 men, 40 women; Grammar, 8 men, 147 women; Primary, 95 women; Mixed, 4 women; Kin- dergarten, 21 women; Drawing, 2 women; Music, 1 man, 1 woman; Sewing, 3 women; Manual Training, 2 men; Supervisor of Primary Grades, 1 woman; Or- ganizer and Director of Special Classes, 1 woman; Physical Director in Elementary Schools, 1 man; As- sistant Physical Director in Elementary Schools, 1 woman.	
Teachers in Evening Schools, counting principals, term of 1918-1919	63
Pupils enrolled in Evening Schools ,term of 1918-1919.....	2,096
High, 1,304; Elementary, 792.	

SUPERINTENDENT'S REPORT

Whole number of pupils enrolled in Day Schools, 1918-19 High, 1,426; Grammar, 6,244; Primary, 4,555; Mixed 184; Kindergarten, 700.	13,109
Average number belonging to Day Schools, 1918-19..... High, 1,378; Grammar, 5,675; Primary, 3,887; Mixed, 159; Kindergarten, 414.	11,513
Average attendance, 1918-19 High, 1,307; Grammar, 5,214; Primary, 3,445; Mixed, 138; Kindergarten, 322.	10,426
Average per cent. of attendance, 1918-19..... High, 94.8; Grammar, 91.8; Primary, 88.6; Mixed, 86.7; Kindergarten, 77.7.	
Average membership for year ending December, 1919 High, 1,429; Grammar, 5,783; Primary, 3,928; Mixed, 164; Kindergarten, 401.	11,705
Number of school rooms in actual use in June, 1919..... High, 50; Grammar, 146; Primary, 96; Mixed, 4; Kindergarten, 15.	311
Number of school rooms in actual use in December, 1919.... High, 50; Grammar, 147; Primary, 104; Mixed, 5; Kin- dergarten, 14.	320
Average number to each room for year ending June, 1919 High, 218; Grammar, 39; Primary, 40; Mixed, 40; Kindergarten, 28.	
Average number to each room for year ending December 1919. High, 29; Grammar, 39; Primary, 38; Mixed, 33; Kindergarten, 29.	
*Average cost of each pupil for tuition only, based on aver- age number belonging High, 62.16; Grammar, 34.40; Primary, 29.65; Kin- dergarten, 45.42.	
Average cost per pupil, based on the average number be- longing, and on the total expenditures for tuition, janitor service, medical inspection, supervision, sup- plies, fuel, and all incidentals	\$53.82

*Not including training schools.

VOCATIONAL SCHOOLS

Boys: Building, 11 rooms, 10; teachers, 10; pupils enrolled, 149; average number belonging, 86.73; average number attending, 74.67; per cent. of attendance, 86.

Girls: Buildings, 1; rooms, 7; teachers, 6; pupils enrolled, 57; average number belonging, 36.3; average number attending, 32.77; per cent. of attendance, 90.28.

RECEIPTS AND EXPENDITURES**Expenditures**

Appropriated and Assessed in 1919	\$695,455.07
Amount Disbursed	694,984.02
Returned to general treasury	471.05
Teachers of Day Schools:	
High School	\$88,825.80
Grammar Schools—Bartlett	\$1,797.68
Butler	18,110.43
Colburn	11,761.65
Edson	13,074.32
Green	13,489.40
Greenhalge	14,249.18
Lincoln	14,610.10
Moody	12,367.75
Morey	19,699.95
Pawtucket	13,536.86
Riverside	5,981.11
Varnum	17,274.90
Washington	12,867.78
	\$168,821.11
Primary and Mixed Schools	\$104,111.42
Kindergartens	16,853.32
Special Teachers	15,080.73
Substitutes	11,403.50
Total paid for instruction in Day Schools	\$405,095.88
School Physicians, Dentist and School Nurses	4,586.50
*State agreement on Training Schools.....	32,564.70
Janitors:	
Janitors of Day Schools	71,417.53
Pensions	316.03
Repairer of Furniture	1,245.10

*See page 32.

Evening Schools:

Teachers, High and Elementary Schools	\$13,594.50	
Janitors	2,362.50	
		\$15,957.00

Americanization

Teachers	\$3,383.00	
Janitors	798.00	
		\$4,181.00

Cost of Supervision

Superintendent of Schools	\$3,850.00	
Office Assistant	1,156.45	
Attendance Officers (four)	7,833.81	
Clerk in Attendance Office	800.00	
Assistant in Supply Room	1,148.73	
Clerk in Supply Room	816.67	\$15,605.66
Military Service		602.60
Deficit (from 1918)		6,300.00
		\$22,508.26

Vocational School Teachers and Janitors.....	\$34,421.58	34,421.58
Total Salaries, Vocational Schools omitted		\$557,872.00
Total Salaries, Vocational Schools included		\$592,293.58

Expended for bills for the year 1919:

Coal (Evening Schools, \$1,100.00)	\$31,581.19
Wood	559.50
Water (Evening Schools, \$50.00)	1,773.38
Board of Truants	1,646.01
Electricity (Evening Schools, \$1,200.00)	3,174.03
Gas	2,393.01
General Repairs	1,570.66
Electrical Repairs	1,210.93
Furniture	3,877.07
Books	10,236.88
Paper and Supplies (Evening Schools, \$250.00)	8,100.53
Kindergartens	383.00
Printing (Evening Schools, \$154.00)	2,013.70
Manual Training (Evening Schools, \$150.00)	1,624.80
Janitor Supplies	4,210.08
Apparatus	420.48
Dental Supplies	50.61
Medical Supplies	135.70
Cooking, Etc.	1,277.66
Material for Sewing	559.16

SUPERINTENDENT'S REPORT

11

Autos	5,864.78
Graduations (Evening Schools, \$75.00)	1,232.81
Regiment	791.73
Telephones	773.42
Transportation	1,034.29
Miscellaneous	452.61
Appropriation Transfers	5,820.65
Physical Training	105.93
Expense of School Committee	919.40
Rents	162.00

Total	\$93,956.00
Bills, Vocational School	\$ 8,734.44
Total of Bills, Vocational School included	102,690.44
Salaries and bills, Vocational School omitted	651,828.00
Salaries and bills, Vocational School included	694,984.02

Analysis of Vocational School Expense

Salaries of Day Teachers	\$22,441.09
Janitors of Day Schools	2,622.18
Salaries of Evening School Teachers	5,839.75
Janitors of Evening Schools	1,064.00
Smith-Hughes Fund	2,454.56

Total of Salaries	\$34,421.58
Equipment and Supplies	8,734.44

Total Expenditures for Vocational School	\$43,156.02
--	-------------

Receipts

The receipts by the general treasury on account of the school department during the year were as follows:

Vocational School:

Smith-Hughes Fund	\$2,454.56
Reimbursement	14,653.68
Tuition	2,474.25
Earnings	803.07

General:

Tuition	7,706.77
Massachusetts School Fund	59,466.66
Sight-Saving Class	750.00

Total	\$88,288.99
-------------	-------------

Expenditures by Public Property Department	\$43,976.36
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RECEIPTS AND EXPENDITURES (DISCUSSION)

The total amount expended by the School Committee for the year 1919 was \$694,984.02; the amount for the year 1918 was \$573,204.06, including a deficit of \$9,447.54 from the year 1917. The increase for 1919 was \$131,727.50.

Beginning in September, 1918, salaries were increased and the new schedule of salaries prevailed throughout the whole year 1919; moreover, practically all salaries in the department were increased \$400, beginning with November, 1919.

The large items of increase were as follows: high school, \$23,257; grammar schools, \$30,738; primary and mixed schools, \$20,297; kindergartens, \$1,704; special teachers, \$4,629; substitutes, \$4,301; Americanization classes, \$4,181; mills, \$9,682.

The receipts by the general treasury of the city, on account of the School Department, made up of tuition in the public and vocational schools, reimbursement by the State on account of the vocational school, earnings of the vocational school, money from the Smith-Hughes fund, and a large sum from the Massachusetts School Fund, make a total of \$88,288.99; therefore the net expenditure by the School Committee for the year 1919 was \$606,695.03.

In computing the amount to be paid the city from the Massachusetts School Fund, allowances are made as follows: for each teacher's salary, ranging from \$650 to \$750, one hundred dollars is returned by the State; for each salary from \$750 to \$850, one hundred fifty dollars is returned; and for each salary of \$850 or more, two hundred dollars is returned.

On page 7, in the Summary of Statistics, the valuation of the city is given at \$107,315,763, an increase of \$8,540,913 over the valuation of 1918.

The city treasury received from the State as income from intangibles \$129,212.40; at any rate, such an amount was the allotment for Lowell for the year 1919. While it would not be correct to compute additional valuation of the city from this

sum as a basis, it is true, nevertheless, that the city was assigned an income equal to the income derived by its own taxation from a valuation of approximately \$5,000,000. The amount allotted for the year 1917 was \$167,179.92, and the amount for 1918 was \$111,541.67.

SCHOOL CENSUS

The following data were obtained from the census of 1919:

	Males	Females	Total
(a) Five years of age or over and under seven	1,573	1,732	3,305
(b) Seven years of age or over and under fourteen	7,234	7,385	14,619
(c) Fourteen years of age or over and under sixteen	935	1,027	1,962
	9,742	10,144	19,886

These figures show a considerable reduction as compared with the figures of 1918; but I have been assured by the attendance officers that all reasonable care has been taken in counting and that the reduction of several thousand in the total number is due to the reduction of the abnormally large population, which the city had during war activities.

It remains true that the attendance of many children at school is not so regular as it should be; much of the retarding of children in school is due to irregular attendance, and the fact that a large number of our boys and girls go to work without completing the course in the elementary schools is due to the neglect of those who are responsible for the regular attendance of children at school.

During the year, section 1 of chapter 44 of the Revised Laws, as amended by later legislation, was further amended by substituting the word "sixth" for the word "fourth"; the result of this legislation is to make it necessary that a child comply with the educational requirements up to the sixth grade instead of the fourth, before he may be excused from attendance in the day elementary schools.

SCHOOL HOUSES

HIGH SCHOOL

During the year a new act of the legislature was passed providing for a commission to build a High School. The courts had decided that the commission chosen in the year 1917 had been illegally elected. Acting under the law of 1919 the Municipal Council and the School Committee elected as members of the commission, Dr. John H. Lambert, Dr. Joseph E. Lamoureux, Hon. George E. Marchand, and Messrs. John A. Stevens, John J. Mullaney and Timothy F. O'Sullivan.

Since the work was first projected the legislature has empowered the city to borrow outside the debt limit various sums of money for the High School; it is believed that the total cost of the land and building will be approximately \$2,000,000. There is every indication that the city will have in the near future a high school which will be adequate to its needs for a long time.

ELEMENTARY SCHOOLS

In all recent school reports attention has been called to the need of larger elementary school buildings. We have too many distinct school units and the policy of the city should be to reduce the number and increase the capacity of school buildings.

During the last ten years considerable additions have been built in the Greenhalge, Pawtucket and Bartlett districts.

In April, 1919, land was purchased for an addition to the Morey school and in August contracts were let for the building of an addition of fourteen rooms. This building should be ready for occupancy in September, 1921, and should be when completed a remarkably fine school.

Six portable school houses were built in 1919; three to relieve crowded conditions in the Washington school, two to relieve crowded conditions in the Morey school and one for use as a manual training room at the Varnum school. These

buildings are the first of the kind to be used in Lowell, and have proved to be in the main very satisfactory; they were built at a total cost of \$17,752.

RESIGNATIONS, ELECTIONS, AND RETIREMENTS

The following lists give the changes in the roll of teachers and other employees, due to elections, resignations, and retirements:

Resigned

Theodore S. Archibald	Vocational School
Abigail Bacon	Kindergarten Teacher
Agnes Bailey	Elementary
Herbert D. Bixby	Headmaster, High School
J. Francis Boland	Vocational School
Charles E. Clark	Schoolhouse Janitor
E. Grace Common	Elementary
Mary T. Jones	Elementary
Mrs. Frances Noonan McKinley	Elementary
Joseph A. Mehan	School Physician
Mrs. Julia Slattery Murphy	Elementary
Mrs. Susan Griffin O'Brien	Elementary
James F. Peebles	Vocational School
Mrs. Violet Stocks Proctor	High School
Mrs. Katherine Tobin Wood	Elementary

Retired

Michael Finnegan	Schoolhouse Janitor
Matthew Ward	Schoolhouse Janitor
Julia M. Williams	Teacher Varnum School

Elected

James A. Buckley	Schoolhouse Janitor
Maurice A. Butterfield	Submaster, Vocational School
William P. Boland	High School
J. Francis Boland	Vocational School
Bertha Chapman	Pianist, High School
Helen A. Choate	High School
Charles E. Clark	Schoolhouse Janitor
Gertrude B. Crowley	Kindergarten Principal
Mary H. Downey	Attendance Officer
Helen L. Eveleth	Kindergarten Teacher
John J. Gardner	High School

James D. Gearon	Vocational School
Catherine T. Gillick	Elementary
John J. Gildee	Vocational School
Thomas A. Ginty	Master, Butler School
Thomas A. Green	Schoolhouse Janitor
Vera E. Groves	Organizer and Director Special Classes
Henry H. Harris	Headmaster of the High School
William H. Hilliard	Vocational School
Nelle D. Horner	Elementary
Nelle D. Horner	Asst. Instructor Phys. Education
Ruth Howe	Vocational School
Sarah D. Ivers	Elementary
Major Walter R. Jeyes	Instr. Phys. Ed. Elem. Schools
Elizabeth C. Kennedy	Principal Varnum School
Celina L. Lalime	Kindergarten Principal
Louise F. Mahoney	Elementary
Donald R. MacIntyre	Teacher Phys. Ed. in High School
Harriet L. McAloon	Elementary
Ernest McGowan	Schoolhouse Janitor
Lettie R. McMaster	Elementary
Susan Moran	Cleaner
Esther A. Owens	High School
Gladys T. Parsons	Kindergarten Teacher
Helen Pollycutt	Temporary Teacher, Voc. School
Elizabeth Provencher	Principal of Green School
Dorothy F. Riordan	Elementary
Timothy F. Rohan	Schoolhouse Janitor
John J. Rogers	Schoolhouse Janitor
John Shields	Schoolhouse Janitor
Helen M. Sullivan	Elementary
Bernard J. Tracy	Schoolhouse Janitor
Theresa L. White	Kindergarten Teacher
Henry L. Williams	Bus Agent, School Department

Reinstated

Mary F. Devine	Elementary
Sarah Swan Griffin	Elementary
Minnie Owens	Elementary
Margaret J Riordan	Elementary

In Memoriam

Belle H. Hatchelder
Teacher in the Bartlett School

Mary L. Crowley
Teacher in the Butler School

Alice G. McGilly
Teacher in the Washington School

John J. Conway
Janitor of the Sycamore Street School

PUPILS BY GRADES

The following table shows the number of pupils in the schools, according to grades.:

	Males	Females	Total
Kindergartens	195	205	400
Grade 1	916	824	1740
“ 2	760	733	1493
“ 3	548	579	1127
“ 4	616	643	1259
“ 5	655	574	1229
“ 6	516	555	1071
“ 7	435	404	839
“ 8	375	419	794
“ 9	326	331	657
“ 10	224	336	560
“ 11	192	222	414
“ 12	137	177	314
“ 13	92	144	236
“ 14	5	7	12
Total	5992	6153	12145

HIGH SCHOOL

The High School graduated a class of 267 in June and there was an entering class of 553 in September. Of this class 381 were from public schools, 96 from private schools, 47 from towns which have certificate privileges, 7 entered by examination, and 22 came from out-of-town schools.

The grammar schools sent 82 per cent of their graduates to the High School; the average age of the entering class was 14 years, 3 months.

The graduation exercises were held in Keith's Theatre on June 25; the names of the Carney Medal students, and the names of the students who were awarded honorable mention are here given.

CARNEY MEDALS

Walter Augustine Hall

Harris Barber

Joseph Aloysius Donohoe

Helen Keightley Carley

Bessie Natalie Braverman

Josephine Frances Harmon

HONORABLE MENTION FOR SCHOLARSHIP

George Kyriacoule Spyrounes	Elsa Catherine Anderson
Helen Varnum	Wendell Blanchard
Lillian Rita Watterson	Rita Myrtle Jackson
Opal May Cunningham	

HONORABLE MENTION FOR PERFECT ATTENDANCE

Harris Barbe	Marion Elizabeth Harkins
Clement Bartlett Stoddard	

MEDICAL AND DENTAL SUPERVISION

The health of the children in the public schools is supervised by nine physicians and two nurses, all being under the control of the school department.

The Board of Health employs four physicians for the private schools and their names and the schools they supervise are given below:

- Dr. F. P. Murphy**—Immaculate Conception, St. Peter's School and Orphan Asylum, Sacred Heart, St. Stanislaus.
- Dr. R. C. Stewart**—Our Lady of Lourdes, St. Louis, St. Patrick's for Boys, St. Patrick's for Girls, Notre Dame Academy.
- Dr. H. W. Jewett**—Greek Orthodox, St. Michaels, St. Mary's, Mrs. Paxton's Private School.
- Dr. Migneault**—St. Joseph's for Boys, St. Joseph's for Girls, St. Joseph's Pawtucketville, St. Joseph's Kindergarten.

The names of the school department physicians and the schools they supervise are given in the directory pages of this report.

The school department maintains a dental room in the Worthen Street School, located on Worthen Street between Market Street and Broadway. The room is open on all school days, including days when the storm signal is sounded, from nine until twelve in the forenoon, and service is free for any child from any school, public or private, for whom an appointment has been made; appointments are made by school physicians, nurses, teachers, and Miss Lantagne, the dentist's assistant.

The following summary of work done during the year in the clinic is submitted:

Dental Clinic report from January 2 to December 31, 1919:

Amalgam fillings	267
Cement fillings	114
Temporary cement fillings	5
Teeth extracted	1052
Teeth treated	148
Toothaches treated	75
Cleanings	660
Children	848

There are but two school nurses and, although the schools really need more, their work has been of great value. As medical inspection of schools has been commanded by law for only about ten years it can be said that the general results obtained along these lines in Lowell will compare very favorably with those obtained in other cities. The time has come, however, in my opinion, for proper arrangement of the medical and health activities in the school under one competent supervisor.

The following table gives the data submitted by the nurses:

SCHOOL NURSES' REPORT FROM JAN., 1919 TO JAN., 1920

Number of visits to schools	6,665
Pupils examined by physician	16,278
Pupils re-examined by nurse	12,285
Pupils excluded from school	610
Pediculosis	209
No vaccination	115
Scabies	22
Rash (undiagnosed)	51
Chicken-pox	16
Mumps	37
Colds with fever	127
Sore throat	85
Desquamation	2
Chorea	1
Acute epidemic conjunctivitis	3
Tonsilitis	1
Eczema	1
Dermatitis	1
Scarlet fever	2

Impetigo	14
Total	690
Contagion found in schools	108
Scabies	22
Chicken-pox	16
Mumps	37
Desquamation	2
Impetigo contagiosa	14
Tonsilitis	1
Scarlet fever	2
Ringworm	11
Epidemic conjunctivitis	3
Notices sent to parents	9,249
Tooth brushes sold to pupils	1,152
Clothing and shoes given to pupils	25
DEFECTS (PHYSICIAN'S INSPECTION)	
Defective teeth	6,176
Defective speech	15
Defective nasal breathing	89
Defective eyes	22
Enlarged tonsils	3,122
Pediculosis	3,718
Enlarged cervical glands	43
Blepharitis	42
Impetigo	349
Unclean	2,033
Headache with fever	66
Anemia	49
Earache	22
Eczema	28
Furuncle	24
Strabismus	29
Organic heart trouble	13
Functional heart trouble	17
Acne	2
Laceration and infections	240
Rheumatism	3
Burns	6
Epistaxis	4
Growth on skin	3
Seborrhea	1
Keratitis	2
Hordeolum	2

SUPERINTENDENT'S REPORT

Hemorrhage into cornea	1
Goitre	1
Rat bite	1
Sore throat	124
Otitis Media	23
Abscess on root of tooth	22
Foreign body in eye	4

TREATMENTS.

First aid in schools	9,955
Consultations with teachers	1,634
Consultations with pupils	1,647
Hygiene talks in school	1,222
Instructions in the home	256
Home visits (new)	289
Home visits (old)	125
Tooth brushing demonstration	2
Tooth brush drills	72
Tonsils and adenoids removed	104
Pupils treated by school dentist	611
Pupils treated by family dentist	169
Pupils treated by family physician	93
Pupils treated by oculist	24
Pupils treated at Hosp. clinic	24
Corrected vision by glasses	38
Pupils escorted to eye clinic	8
Pupils escorted to surgical clinic	2
Pupils escorted to oculist	3
Children referred for summer vacation	5
Pupils transferred to fresh air rooms	4
Pupils referred to Waverley	4
Pupils referred to T B. clinic	9
Cases reported to Board of Health.....	7
Cases reported to Charity Dept.	1
Cases reported to Humane Society	2
Cases reported to Milk Station	2
Cases reported to American Red Cross	1
Cases referred to St. John's Hosp.	1
Cases referred to Lowell Guild	6
Cases referred to City Dispensary	1
Cases referred to Children's Hosp.	1
Cases referred to Working boys home	1
Cases referred to Monson's Epileptic Home	1
Cases referred to Mass. Commission for the Blind	5
Cases referred to International Institute	2
Witness at Police Court	1

SIGHT AND HEARING TESTS

	Pupils Examined	Defective Sight	Per Cent. Defective	Defective Hearing	Per Cent. Defective	Parents Notified
High	1597	94	.058	12	.007	106
Grammar	5933	822	.138	118	.019	678
Primary	4436	342	.077	66	.014	278

SCHOOL SAVINGS BANKS

The school savings account is printed below :

SCHOOL	Deposits Dec. 31, 1918	Deposits Dec. 31, 1919
Bartlett	\$5,596.67	
Butler	4,216.35	
Colburn	2,692.42	\$3,103.93
Edson	2,891.99	
Green	3,134.75	
Greenhalge	4,893.69	5,263.02
Lincoln	7,773.04	
Moody	4,936.13	
Charles W. Morey	8,829.86	876.19
Pawtucket	7,037.93	
Riverside	1,815.24	1,747.57
Varnum	6,710.91	1,563.41
Washington	2,914.08	
Total	\$63,443.06	\$12,554.12

Very large sums have been collected and deposited in the savings bank since this movement began some years ago. Many causes, however, more or less connected with the war, checked the saving of money by the children to such an extent that the banks were not able with profit to themselves to take the weekly collections at the schools. We have reason to believe that when conditions become more normal we shall see the school savings banks in a flourishing state once more.

VOCATIONAL SCHOOL

The ninth year of the school opened with an enrolment of one hundred and forty-seven boys and seventy-two girls. The only requirement for admission to the day classes of the Vocational School, so far as age is concerned, is that a pupil must not be less than fourteen and not more than twenty-five years of age.

All pupils must be residents of the state; for pupils who do not reside in Lowell there is a tuition charge of \$100.00* payable by the city or town of the non-resident pupil, as the school is absolutely free to the individual pupil, regardless of his place of residence.

The work is so arranged that a boy may enter at any time and advance as rapidly as his industry and ability will allow.

The school offers preliminary training for boys as carpenters, electricians, cabinet-makers, machinists, and automobile repairers.

The boys are trained mostly on productive work in all departments and the work is of such a practical nature that they fit naturally into the industry in advanced apprenticeship standing.

All the courses are planned for three years, seven hours a day, five days a week.

The courses are divided into three phases consisting of about one year's work in each. Upon the satisfactory completion of any phase a certificate is given.

If a boy gets three certificates and works at the trade for which the school has trained him, he is entitled to a diploma.

On account of high wages and lack of help during the war only a few boys remained in school more than a year.

This year the attendance has improved and there are prospects of having a good third year group next September.

The buildings are entirely too small for the present number of pupils and additional room must be secured before the school opens in September. The floor space is now about thirteen thousand square feet and it should be doubled at least.

Another story added to the present machine shop will make fairly adequate accommodations until permanent quarters can be obtained.

The courses have been run on a weekly schedule as follows: Shop Science, one-half day; Mechanical Drawing, one-

*Will be increased, probably.

half day; Academics. one-half day; Physical Exercise, two hours; the remaining three days and one and one-half hours are spent on practical work in the shops.

The equipment is as follows:

Machine Shop:—

3 milling machines, one universal, 3 shapers, 3 drills, 1 planer, 2 power saws, 1 grinder, 20 engine lathes, 2 speed lathes, and other small tools and accessories.

Elect. Shop:—

7 direct current motors, from 1 to 10 HP., 4 3 phase generators, 1 motor generator set, 1 Tungar Rectifier, measuring instruments and small tools.

Carpenter Shop:—

1 buzz planer, 1 cylinder planer, 1 combination and 1 single saw bench, 1 band saw, 1 turning lathe, 20 sets of carpenters tools, benches and auxiliary tools.

Auto Dept.:—

3 auto engines for instruction purposes, 1 starting and lighting system, 1 N. E. Dynamotor—1 battery charger, wrenches, pliers, jacks, etc., for general repairs.

GIRLS' DEPARTMENT

Morrill School, Common St., Opp. North Common

(Free to all pupils living in the State of Massachusetts)

This school aims to prepare the girls of Lowell and surrounding towns for life's activities and duties; to give them a training in the branches of knowledge and the trades that are most useful in the home and in gaining a livelihood.

It is recognized that every girl preparing through any kind of an education for life will have more or less to do with a home, with the chances largely in favor of her having at some time the entire care of a home; and upon the proper management of the home depends much of the happiness and success of our community. Hence a training in home economy should be part of every girl's education.

To meet these requirements the Vocational School offers two-year courses in housekeeping, dressmaking and power machine work. In addition the school teaches academic subjects

which are related to the practical work in a way that makes their value fully appreciated. Millinery is taken up in season during the second year.

Physical exercise, under direction, is an attraction of the junior and senior years.

Dressmaking.—This course is planned to fit a girl for the dressmaking trade. It includes plain sewing, dressmaking, modeling, power machine work and mending.

Mending.

Patching.

Darning.

Mending of straight and hedge tears.

Millinery.

Fall and Spring Renovating.

Making of velvet, straw and lace hats.

Trimming.

Flower Making.

Housekeeping.—The housekeeping course includes every thing that makes and keeps a house in good condition to live in. It teaches the buyer to get a hundred cents' worth out of every dollar spent for food and clothes. It includes cooking, household management, laundry work, table service, marketing and home nursing.

Cooking.

Economy and management of the kitchen.

I. Plain cooking.

II. Food values.

III. Simple menus.

IV. Serving.

V. Marketing.

VI. Practical application in the home.

NOTE—Repetition develops responsibility and assurance in the cooking and serving of meals. This practical experience is gained in the lunch room of the State Normal School, now under the management of the Vocational School.

Laundry Course.—Includes practice in removal of stains, washing and ironing of all articles of clothing and of household linens,

Household Engineering.

- Efficient Household Arrangement.
- Plans and methods for Daily Housework.
- Choice and care of Household Tools.
- Cleaning—Standard Practice.
- Labor-Saving Devices.

Home Nursing.

- Care of bedroom.
- Care of patient.
- Bandaging.
- First Aids.
- Care of the Baby.

Arithmetic in relation to:

- I. Dressmaking—Millinery.
- II. Personal expenditure.
- III. Household.
- IV. Business.

English:

- I. Correction and improvement of every-day speech.
- II. Personal and business correspondence.
- III. Cultivation of a taste of reading.

Civics.

- 1. Government of Communities.
- II. Current events.
- III. Local Interests.

Economics.

- I. Problem of the Standard of Living.
- II. Price and Wages.
- III. Industry.

Textiles.

Study of Fabrics.

- I. Name.
- II. Cost.
- III. Durability.
- IV. Uses.
- V. Tests.

Design.

Art as applied to a woman's clothing.

- I. Color.
- II. Line.
- III. Fabric.
- IV. Appropriateness.

Handicraft.

Through stenciling, painting and needlework, the pupils learn the construction of many useful and artistic articles.

Care of the Home.

- I. Furnishing.
- II. Decorating.
- III. Sanitation.

GIRLS' DEPARTMENT

In February, 1916, the girls' school opened the dining rooms at the State Normal School and since then has served dinners and luncheons to the faculty and students of the school. This gives a valuable training in preparing food in large quantities and also in serving; the practice proved to be so valuable it seemed wise to make it a permanent part of the curriculum.

The school sent out a class of seventeen graduates on June 24, 1919.

The State Board of Education exercises a considerable control over the school, as the state has agreed to pay half of the maintenance expense of the school. In order to secure reimbursement from the state, the courses of study, equipment, buildings, and the work of the teachers must be approved by the agents of the State Board of Education.

EVENING VOCATIONAL SCHOOL FOR MEN

These courses are trade extension and are open only to the men employed in that line of work during the day and sixteen years of age or over.

The school opens early in October and each class meets two evenings a week, two hours an evening, for twenty weeks.

The following courses were offered :

COURSE	NO. BELONGING
Machinist	117
Auto Repair	68
Carpentry	25
Plumbing	33
Electrical Theory	34
Firemen	43—18 got licenses
Engineers	16—Several got licenses

WOMEN'S EVENING PRACTICAL ARTS

Courses in cooking, sewing and millinery are in operation in several parts of the city, from October to April, two evenings a week, two hours each evening.

The classes are for employed women and girls sixteen years of age or over and eight hundred or over were in attendance last year.

The main work is carried on at the Morrill school, but the courses are being run at the following centers :

Butler—2 cooking and 2 sewing classes

Colburn—Sewing classes were conducted in connection with the Americanization work.

Varnum—Classes in cooking, sewing and millinery were held in correlation with the Americanization work.

Greenhalge—Cooking, sewing and millinery classes.

Pawtucket—Cooking, sewing and millinery classes.

Morrill—Cooking, sewing and millinery classes.

Respectfully submitted,

THOMAS F. FISHER, Principal.

MANUAL TRAINING AND COOKING

Progress in these important subjects in the elementary schools can be reported for the year 1919. New equipment and facilities for these two lines of work were provided during the year for the Varnum and Riverside schools.

The Lincoln school is the only grammar school in the city whose children have not yet been provided with these facilities; it is expected, however, that this deficiency will be remedied at an early date.

Work in domestic science for girls and some form of work with the hands for boys are regarded today as of great value, not only on account of the value of the particular thing which is done along these lines, but on account of the general educational and training value of the work. Some day when the new high school has its proper laboratory and equipment, when the vocational school has been properly outfitted and equipped, and we have larger and better grammar schools we shall do a great variety of things which will be somewhat apart from the "book education of the past" and they will be more valuable than part, at least, of that "book education."

PENMANSHIP

For several years the work in penmanship in the elementary schools has been supervised by three of the teachers from the Commercial Department of the High School. These teachers give three afternoons each week to the work, and their supervision is confined to the grammar grades of the city.

Beginning with the opening of the schools in September an elementary school teacher, well qualified for this work, was employed to supervise the work in the primary grades and simple manuals were introduced.

We believe that there is no better system of writing supervision than the one in operation in our schools.

SCHOOL AND HOME GARDENS

A great amount of profitable work was done during the year in gardening. The nation and the state are taking a very great interest in this activity at the present time.

Many home gardens were cared for by children from the schools, and during the summer Miss Lee and Mr. Dennett supervised them and were paid for their vacation services by the Park Department.

For a number of years Miss Lee has done very important and valuable work with the gardens and a very efficient School Garden Army has been organized.

In the near future we may hope to see close cooperation between the city and the state and national authorities for encouragement of this important work of production with, probably the formation of classes of adults for instruction in gardening.

The following is taken from a report submitted by Miss Lee:

The appeal of the President to the school children of the United States to assist in food production in the early spring of 1918 was again made in 1919, and Lowell school children responded to the call. Four thousand nine hundred and ninety boys and girls enlisted in the United States School Garden Army to plant and care for gardens.

Every grammar school district was organized into a regiment and officers elected or appointed, to assist in directing and supervising the gardens in their respective divisions and companies.

By request of the Superintendent of Schools this organization extended through the nine elementary grades. Little first grade children planted one kind of seed under direction of their parents or older brothers and sisters and ninth grade pupils cultivated large areas, indeed, small farms, and many sold the products from their gardens and realized considerable money besides furnishing the family table with fresh vegetables.

I visited approximately one thousand gardens during the month of July and was surprised and pleased with the work accomplished by both boys and girls and the interest and pride

shown by parents in the work of their children and thought what an important factor garden work proved in binding more closely together the home and school.

To do this successfully every school district should have at least one supervisor to direct the garden work of the district.

We are indebted to Hon. John Jacob Rogers, our Congressman, for sending to us a generous supply of seeds from the U. S. Department of Agriculture. Every child in Lowell who had a garden received seeds from Mr. Rogers.

The Board of Trade gave me fifty dollars to devote to the garden work of the city.

With this I bought fertilizer and seeds and with the remainder gave prizes in the form of bank checks to the children having the best gardens in each school district and sending me reports of the same at the end of the season. One hundred and five prizes were awarded.

It would be impossible in this report to give a detailed account of the garden work of the school children in Lowell. In money value I do not think \$20,000 would be placing too high a figure on the amount realized but I feel that this is a small part of the actual value of this work in the education and lives of our children.

Respectfully submitted,

ALICE T. LEE,
Supervisor of Primary Grades.

STATE AGREEMENT AND TRAINING SCHOOLS

From the time of the establishment of the State Normal School at Lowell in 1897, there has been some form of agreement between the State Board of Education and the School Committee of Lowell for the proper and harmonious direction of certain activities of the schools used as training schools which were of common interest to the state and city.

The principal item in the first agreement was that the State should nominate and that the School Committee should elect the teachers for the training schools.

A second agreement was entered into on July 1, 1914, which contained practically all of the first agreement and the additional provision that the city of Lowell should pay annually to the state a sum of money known as "cost of maintenance and instruction in the training schools," this sum to include expenses for everything except repairs, medical inspection and the service of the attendance officers. Under this agreement the state apparently paid the salaries of the training school teachers but was in reality the disbursing agent for the Lowell School Department so far as the bulk of the salaries in the training schools was concerned.

A third agreement between the State Board of Education and the School Committee of Lowell went into effect December 1, 1919, in accordance with which a return was made to the terms of the original agreement; according to this agreement the state nominates and the School Committee elects those who are to serve in the training schools and the salaries and all other expenses are paid by the city. Under this agreement only the Bartlett and the Lexington avenue schools are used as training schools.

EVENING SCHOOLS

The evening schools of the city offer at the present time many advantages and cover a reasonably wide range of activities. Since the reorganization of these schools a few years ago, it has been the aim of the School Committee to secure so far as possible as capable teachers for the evening schools as for the day schools.

In the evening high school the principal and the instructors are, with few exceptions, teachers in the day high and elementary schools; in the evening vocational school all of the day teachers are employed and the additional teachers, whom the large evening registration makes necessary, are selected as carefully as if they were to be employed in the day school; in the evening elementary and Americanization classes all of the teachers are day school teachers.

The number of children who are compelled to attend the evening schools has been growing smaller because of decreased immigration and the consequent reduction of the number of illiterate minors. It is also only too true that comparatively few parents make any effort to send to the evening elementary schools boys and girls who have not completed the course in the day elementary schools.

By the provisions of Chapter 295 of the General Acts of 1919, cities and towns were empowered to establish classes for the education of persons over twenty-one years of age, who are unable to speak, read and write the English language and to provide teachers and supervisors in Americanization work. Previous to the enactment of this law the school department had made decided and more or less successful efforts to establish Americanization classes and it can be said here that the school committee have encouraged in every way the formation of classes for adults who wish instruction in languages and civics.

According to the terms of this legislation, reimbursement is to be made to towns and cities for the maintenance of such classes.

During the year 1919 the course of lessons in Naturalization was given twice, and large numbers of men who were preparing for citizenship took advantage of these classes.

The Naturalization class has been carried on in the Green school on Merrimack street and the instruction is the voluntary work of the Superintendent of Schools and several of his associates in the department.

PHYSICAL EDUCATION

The importance of physical training in the education of children has always been admitted, but until recent years little, except of a general and superficial character, has been attempted in the schools at large, in this department for education.

There is today a great interest in the matter and the disclosures made by the physical examinations of young men for the army have increased that interest.

Several states have passed important laws concerning physical training and health and it can be predicted with assurance that a high regard for and close attention to the health and physical well-being of the boys and girls in the schools will characterize all progressive school systems of the future.

In January of the past year the school committee voted to establish the position of Supervisor of Physical Education in the elementary schools. The committee prescribed at that time that the duties of such supervisor "shall be to analyze and develop all activities intended to benefit the physical well-being of pupils, including the physical development of the body, examination for defects, and the cures thereof, the detection of sickness, instruction in hygiene, in cooperation with the school physician and nurses, development of calisthenics, fire drills and healthy sports."

Major Walter R. Jeyes was appointed supervisor and in a remarkably brief time valuable and attractive work was organized throughout the elementary schools. In November Miss Horner was made an assistant in the work.

Thus has a beginning been made in a very important work in the schools; in order to carry on this work successfully we shall need many teachers and should gradually secure necessary apparatus, and plan for a gymnasium and out-of-door facilities for proper development of the work.

Beginning with September in the High School a man was employed for the physical education of the boys. Up to that time, omitting football, baseball, and track athletics, activities which engage the time and interest of only a part of the boys, there was nothing of a physical character for High School boys except military drill and its setting up exercises. Now, however, games have been introduced and there is general physical training on approved lines by a specialist in this work; the

boys of the freshman class particularly have nothing but physical work under this director, and have been excluded from the work of the regiment. This department in the High School is only at the beginning of its development; it has great possibilities and the changes which have been made so far promise great improvements.

The report of Major Jeyes follows.

REPORT OF MAJOR JEYES

From Walter R. Jeyes, Director of Physical Training, Elementary Schools, Lowell, Massachusetts.

To: Mr. Hugh J. Molloy, Superintendent of Schools, Lowell, Mass.

Subject: Yearly report on above work.

In conducting the physical work for its introductory year in the Lowell schools I have endeavored to secure the co-operation of the masters and teachers. I am sure that the results have been, on the whole, very satisfactory.

The cooperation of the school physicians and nurses has been excellent; they have shown at all times their belief that the work as it has been conducted has been of benefit to the pupils.

The work of my assistant, Miss Nelle Horner, has been of very high grade and she has rendered very valuable help.

The work should be extended so that more schools might receive the benefits of it; we are now covering seventeen schools, but we should have the work in all the schools, and even now some of the smaller schools are anxious to have the work introduced. A proper extension of the work is not possible unless we are to have more assistants in physical training.

The first day of each month a schedule has been forwarded to each master showing the day and the hour at which the teacher might be expected at the school; a syllabus of the work as I wished it to be carried on was forwarded to each master. In every school leaders were appointed, captains

and lieutenants, and they have done wonderful work for themselves and their groups, under our supervision and that of their teachers.

On account of the lack of apparatus the work has been confined largely to athletics, **free arm, leg and body exercises**, games of competition and folk dancing in the lower grades; much attention has been given to proper posture in sitting and standing, proper method of breathing, the benefits of fresh air, suitable clothing and the care of the body; at the same time we have given attention to round shoulders, flat chests, hollow backs, and faults in the neck, shoulders and hips. We have given close attention to the following:

1. Examination for defects of individual pupils while standing.

2. Inspection for defects of individual pupils while marching.

2. Inspection for defects of individuals while exercising.

I am satisfied that the work which we have been doing is admirably suited to the children in our schools, owing to the fact that during the greater part of the year our work must be conducted in the class room and not in a regularly or partly equipped gymnasium.

We are acquiring gradually some athletic apparatus, such as chinning bars (adjustable for boys and girls of all sizes and for use for other games), jumping standards, wands, dumb-bells, hand-over-hand ladders, and basket balls for use in many kinds of games, such as basketball, captain-ball, kangaroo race, and all kinds of races suitable for both boys and girls. We expect to have later, in addition to the Swedish exercises, some good gymnasium classes, especially among the larger pupils in the upper grades.

We expect to have at the proper time, an athletic meeting for the boys in the schools; we shall also have a baseball league among the grammar schools of the city.

At this time I wish to thank the school committee for the

support given me in furthering physical training in the schools, and also the Superintendent of Schools, Mr. Hugh J. Molloy, for his earnest support, consideration and advice in the above work.

Respectfully submitted,

WALTER R. JEYES,
Director of Physical Training.

REPORT OF MISS LEE

Mr Hugh J. Molloy,
Superintendent of Schools.

Dear Sir:

To the supervisor of primary grades has been assigned the supervision of the kindergartens, the first four grades in the elementary schools, and school gardens.

Whatever the ultimate aim of our general school system may be, in our primary grades we have very clearly defined aims.

Here the mechanics of reading must be mastered, certain number facts and processes learned, the elements of writing acquired and the cultural studies of music and drawing commenced.

We are fortunate in having in Lowell a uniform system of phonics by which the mechanics of reading are taught.

The "See and Say" system, introduced three years ago, has proved most satisfactory; it can be used independently and in connection with any reading method.

The work for each grade is well planned and at the end of the third year children should have acquired the power to read fourth grade reading material with ease.

It is also an aid in teaching spelling, and is a great help in teaching our non-English speaking children to enunciate, to read, and to spell.

Two method readers are now in use in our schools, the Aldine and Reading Literature; both are excellent, and it is optional with teachers to use either; for the sake of uniformity,

where one is used as a basal reader the other is used for supplementary reading. Thus the beginnings of reading and spelling are taught in practically the same manner in all primary schools in Lowell—each teacher adapting the method used to suit conditions.

This is of great advantage to pupils who are transferred from one school to another.

It is the aim of the primary school to create in our children a love for good literature; this is done by the telling of stories, by the careful selection of good supplementary reading for the pupils, and by the memorizing of poems of literary merit.

On the approved list of books supplied by the School Department we have excellent reading material. In many schools, children are able to read thirteen different books during their first year in school.

The kindergartens, through phonic work recently introduced, some number work and music, as directed by Miss Hagar, are gradually becoming a unit in our school system.

The years spent by the child in the primary and kindergarten grades are probably the most important in his school life, for not only should he learn during this period of the beginning of reading, writing, and number, but correct habits of living and doing. His physical growth as well as his mental activities should be closely watched and supervised. Hence the necessity for small numbers in primary grades, and the best teachers.

The action taken by the School Committee, on recommendation of the Superintendent, in admitting children to the first grade only during September was very much appreciated by the teachers of that grade. Likewise the new ruling that the entering age be raised to five years and three months.

ALICE T. LEE,

Supervisor of Primary Grades.

SPECIAL CLASSES

Chapter 277 of the General Acts, approved July 1, 1919, provides as follows:

Section 1. The school committee of each city and town shall, within one year after passage of this act, and annually thereafter, ascertain, under regulations prescribed by the board of education and the director of the commission on mental diseases, the number of children three years or more retarded in mental development who are in attendance upon the public schools of its city or town, who are of school age and reside therein.

Section 2. At the beginning of the school year of nineteen hundred and twenty, the school committee of each city and town in which there are ten or more children three years or more so retarded shall establish special classes to give such children instruction adapted to their mental attainments, under regulations prescribed by the board of education.

When these regulations shall have been published and discussed, plans can be devised for the care of deficient children in a wise and careful manner. The matter is a delicate one and should be in the care of those who are experienced in so important a field.

We have had for several years a limited number of special classes for retarded children, many of whom have been retarded in school progress by sickness, delicate physical condition, irregular attendance or limited learning.

In August Miss Vera E. Groves was chosen by the school committee as organizer and director of special classes and during the fall and early season terms several new classes for backward children were organized.

CONTINUATION SCHOOLS

A great and important step in a new direction was taken by the state of Massachusetts when the law establishing continuation schools was passed. The act was approved on July 15, 1919, and was accepted by the voters at the annual state election in November.

In brief, the law prescribes school attendance of not less than four hours a week for all employed minors, between the ages of fourteen and sixteen years, the hours to be between eight o'clock in the morning and five o'clock in the afternoon of any working day or days except Saturday; furthermore, any minor who comes under the provisions of this law and who is temporarily out of employment, is to be compelled to attend school for not less than twenty hours a week, provided the continuation school is in session twenty hours a week.

The number of minors who will attend such a school in Lowell can be estimated only and the housing of the school will present some difficulties.

The school, however, has come to stay; in all probability the age for compulsory attendance will be raised and determined efforts will be made to provide extended training of a most useful character to those boys and girls who are often on account of economic reasons called out of school to work as soon as they reach the age of fourteen.

The school will be opened in September, 1920, and the state and city will unite their efforts to give these children trained teachers, wholesome and pleasant environment and an educational opportunity.

JUNIOR HIGH SCHOOLS AND CHANGES IN GRADES

During the early months of the year there was quite general and extended discussion of the junior high school idea, and several superintendents, from cities which had made some progress in this particular type of organization, were invited to meet the School Committee and discuss with them their investigations and experience. Finally, in August, Superintendent Van Sickle of Springfield was employed to make a brief survey of the Lowell school situation with special reference to junior high school organization.

Mr. Van Sickle's report, strongly favoring the junior high school organization, was submitted before the end of August, and at a meeting on September 3, 1919, the superintendent was instructed by the School Committee to prepare and submit a

scheme for the reorganization of the schools of the city under the 6-3-3 system with junior high schools and eight grades instead of nine.

On December 3 the superintendent submitted a report containing the results of his investigation and making a number of specific recommendations.

The following statement characterizing the junior high school, was an important item in the report.

What is a junior high school? A junior high school is a school which combines the last two grades of the elementary or grammar school system and the first or freshman year of the high school; according to the best standards it should be maintained in its own properly-equipped building, since it is a school of distinct character and purpose, but it may be and is maintained in buildings which contain other grades or units. But, as a part of a 6-3-3 system, and I refer to the 6-3-3 system as it is understood by all educators and administrators, a true junior high school must present certain definite features.

1. It should show a segregation or grouping in one school location of the children of the last two grammar school and the first high school years of a district of considerable size because these children form a rather distinct group as to age and temperament, and in order that their instruction will be so devised as to make an easy transition from elementary to high school methods.

2. Larger numbers of children than the ordinary grammar school has in its last two grades should be brought together in the junior high school group so that there may be a differentiation or a proper classification of children according to their tastes, tendencies, abilities, future courses of study in the high school, or occupations at the completion of their school attendance.

3. The junior high school should offer such range of subjects and activities as will serve to discover and test out the tastes, abilities and inclinations of boys and girls to a greater extent than is now possible in the ordinary type of grammar school.

4. The teaching in all large or important subjects should be departmental; that is, the teacher of any subject should be a specialist in that subject and should give his time in the school almost exclusively to that subject, it being understood, however, that each child shall be assigned to a regular or "home-room" teacher who will have charge of all his minor subjects and have a personal interest in his attendance, conduct and general well-being.

5. There should be in the junior high school a closer and more intimate relation with the high school with regard to supervision, direction, and cooperation than generally exists between the ordinary grammar school and the high school.

6. The courses offered in the junior high school should be such courses as may or will be continued in the senior high school and the method of treating them should be such as will harmonize with the continuation of those courses in the high school.

7. The third year of the junior high school unit must do fully and thoroughly the work of the first or freshman year of the senior high school so that the boy or girl who completes the three years of the junior high school organization will enter high school as a member of the second year or sophomore class.

Any 6-3-3 system or junior high school system which does not show the characteristics which have been referred to in the preceding seven points is not a 6-3-3 or junior high school system. If we are to have junior high schools, true junior high schools, we must arrange junior high school districts and bring together at each one of several central points all of the upper-grade children who are contained in the several grammar schools of a district. Segregation, differentiation, variety of courses, and proper equipment cannot be provided for on any other basis.

After consideration of the recommendations, the committee adopted the following measures:

1. That no material or considerable change be made in the organization, grading, courses of study, assignments of teachers, or locations of pupils until the beginning of a new school year in September.

2. That detailed plans be prepared forthwith, courses of study arranged, teachers prepared, and necessary equipment provided for the organization of the Bartlett School as a Junior High School for the children of the Bartlett-Green-Pawtucket district; for the organization of a Moody-Riverside-Colburn district with the Moody School as center and the Varnum-Greenhalge district with the Varnum School as center, said organization to go into effect in September, 1920.

3. That the organization of Junior High School units in the other districts of the city be entered upon as soon as a suitable addition in the Highland district and a suitable building in the Edson-Butler district shall have been provided.

4. That a formal inquiry be made of all teachers who are interested in junior high school work as to their qualifications, that courses be suggested for the suitable preparation of teachers who aspire to this work and that teachers for any grade of junior high school work, as such work may be established in the future, be selected by the superintendent of schools with the advice of the principal of the junior high school in which the teacher is to serve and of the high school department-head with whose work in the senior high school the work of the teachers in the junior high school will correlate, such selection to be with the approval of the school committee.

5. That in junior high school organizations the salary of the teacher who does purely elementary work be on the elementary schedule, the salary of the teacher who does exclusively work of high school character be on the high school schedule and that the salary of a teacher whose work is a combination of elementary and high school work be on a schedule between the elementary and the high schedule.

6. That the method of changing from nine grades to eight be along the lines referred to in the discussion of city No. 3 in the report; that high school studies be dropped down

gradually into the ninth grade, that some important work of the eighth grade be dropped down to the seventh, so that little by little and by steady advances the work done in what we now call the seventh, eighth, and ninth grades may become the work of what we now call the eighth, ninth and high school freshman classes; this work can be done to good advantage, however, only where we bring together larger groups of children than we are dealing with at present.

7. That the entering age of children in first year primary be raised gradually, perhaps three months each year for a period of three years, and that plans be made for a gradual enlargement of the sub-primary or kindergarten class for the accommodation of children between the ages of four or four and one-half and five and three-quarters years.

8. That the study of Latin and French as electives and the study of algebra, constructional geometry, and commercial subjects, and practice in manual and domestic arts be gradually introduced or extended in what are now the eighth and ninth grades with a view to the merging of those grades eventually into the last grammar and the first high school year grades. That changes in the organization of the schools be made with a view to the enlarged capacity of the high school within the next three years and of the Morey school within two years.

9. That the headmaster and heads of departments of the high school and the masters and principals of grammar schools be consulted and advised with from this time on in the carrying out of this school policy."

SCHEDULE OF SCHOOL SESSIONS AND VACATIONS

High School:—8.25 A. M. to 1.25 P. M.
 Elementary Schools:—8.30 A. M. to 11.30 A. M. and 1.45 P. M. to 3.45 P. M.
 Middlesex Village:—9 A. M. to 12 M. and 1.30 P. M. to 3.30 P. M.
 New Moody Street:—8.45 A. M. to 11.45 A. M. and 1.45 P. M. to 3.45 P. M.
 Lexington Avenue:—8.45 A. M. to 11.45 A. M. and 1 P. M. to 3 P. M.
 Vocational School, Boys':—8.30 A. M. to 12 M. and 12.30 P. M. to 3.30 P. M.
 Vocational School, Girls':—8.30 A. M. to 12.30 P. M. and 1 P. M. to 3.30 P. M.
 Evening High School:—7 to 9.
 Evening Vocational Schools:—7.15 to 9.15.
 Evening Elementary Schools:—7 to 9.

VACATIONS

Summer Vacation—from the Wednesday preceding the last Friday in June to the second Monday in September.

The week which includes Christmas.

The week beginning with the ninth Monday and the week beginning with the eighteenth Monday after the Christmas vacation.

Hours for ringing the no-school signal:—7.30 A. M., 12.45 P. M., and 6 P. M.

SUMMARY OF EVENING SCHOOL ATTENDANCE

For Term 1918-1919

SCHOOLS	Number of Rooms in Each School	Teachers at Beginning of Term	Teachers at Close of Term	Evenings Taught	Whole Number on Registers			Average Number Belonging			Average Attendance			Per Cent. of Attendance	Minors Unable to Read and Write in English		
					Males	Females	Total	Males	Females	Total	Males	Females	Total		Males	Females	Total
High.....	36 34	36	34	74	588	716	1304	244	363	607	213	299	512	84			
Cabot St.....	2	2	2	63		61	61		44	44		35	35	79		1	1
Edson.....	5	5	5	63	103	75	178	50	41	91	40	35	75	82	12	35	47
Green.....	12	13	13	63	299	160	459	130	116	246	99	92	191	78			
Greenhalge.....	3	3	3	63	58	36	94	18	18	36	14	15	29	80	8	23	31
Totals.....	58	59	57		1048	1048	2096	442	582	1024	366	476	842		20	59	79

REPORT OF THE ATTENDANCE OFFICERS FOR THE YEAR 1919

	Total Number Cases Investigated	Absentees	Truants	Wandering on the Streets	Visited Second Time	Visited Third Time	Arrested	Sent to the Middlesex County Training School	Placed on Probation	Prosecution of Parents	Violating the Rules of School	Employment Certificates	Educational Certificates	Illiterate Certificates
January.....	510	437	73	74	52	14	5	3	2	0	0	173	375	23
February.....	240	235	35	69	23	4	2	1	1	0	0	63	273	11
March.....	439	380	59	0	33	8	0	0	0	0	0	75	327	10
April.....	323	288	35	64	24	4	3	0	3	0	0	74	363	15
May.....	393	330	65	74	37	8	2	1	1	0	0	127	566	32
June.....	178	140	30	68	8	1	1	1	0	0	0	151	588	17
July.....												199	549	29
August.....												146	520	31
September.....	142	134	8	34	5	1	0	0	0	0	0	245	502	20
October.....	330	304	26	73	25	4	1	1	0	0	0	152	452	22
November.....	393	342	51	63	26	9	1	0	1	0	0	176	544	50
December.....	274	250	24	68	12	2	4	3	1	0	0	132	506	57
Totals.....	3224	2840	406	587	545	55	19	10	9	0	0	1718	5565	317

Employment Certificates Issued.....	1718
Literate Educational Certificates Issued.....	5565
Illiterate Educational Certificates Issued.....	317
Temporary Certificates Issued.....	10
Vacation Certificates Issued.....	135
Home Cards Issued.....	9
1 Deaf and dumb Certificate Issued.....	1
Total.....	7755

CONCLUSION

There is a great and awakening interest in education on the part of the nation, the state, and the municipality today; such an interest is the happiest of auguries of an enlightened and progressive democracy of the days to come.

The fullest and highest education of the young, the training of the boy and girl so that their greatest possibilities may be realized, is the one great interest and duty of society.

The material interests of life are important; the immaterial things are vastly more important.

The waters of our beautiful river, led by the skilful hand of man, turn as they have turned for years the spindles and looms, whose fabrics have brought the name of our city honorably into all parts of the world, and we are proud of the beautiful and serviceable products of the "Spindle City."

What of the products of that vast, mysterious river of life, of the spindles and looms that are spinning the threads and weaving the fabric of human hearts, of manly and womanly character, of material imperishable, with infinite possibilities of design, the loveliest and the ugliest?

Surely all who think will agree that the only product of its making by which a nation, state or city can be finally judged is the texture, with all its strength, beauty, and enduring qualities, of the men and women it gives to the service of mankind.

Respectfully submitted,

HUGH J. MOLLOY,
Superintendent of Schools.

Roll of Teachers

Giving name, subjects or grade taught and residence

HIGH SCHOOL

Kirk and Anne Streets

Henry H. Harris, Head-Master, ...	93 Eleventh St.	\$3,700
Frederick R. Woodward, Sub-Master, Head of Dept. Mathematics, 77 Marlboro St.		3,000
Fred Albinson, Bookkeeping	8 Newbury St.	2,010
Jennie L. Allen, Physics	270 Gibson St.	1,780
Alice H. Bacheller, Typewriting, Com. Law, Com. Arithmetic, 105 Nesmith St.		1,780
Adelaide Baker, Head of Dept. of French	136 Myrtle St.	1,780
Orton E. Beach, Stenography and Office Training	858 Chelmsford St. ..	2,010
William P. Boland, Chemistry	317 Nesmith St.	1,480
Emma L. Bradley, French	485 Westford St.	1,780
Elmer G. Brennon, College Mathematics, Geometry and Algebra 97 Georgia Ave.		2,470
C. Fred Campbell, Manual Training	245 Foster St.	2,270
Marietta Cassidy, Latin	4 Fifth Ave.	1,780
M. Mabel Cassidy, English and French	44 B St.	1,780
Helen E. M. Choate, Geometry and College Mathematics.	21 A St.	1,280
Ethel V. Cleaves, Physical Instructor	30 Hanks St.	1,780
Alice L. Cluin, Latin and Algebra	130 Fort Hill Ave.	1,580
John F. Conway, Chem., Head of Dept. of Physical Education, 115 Nesmith St.		2,310
Grace D. Donovan, English	256 Branch St.	1,780
Ruth L. Eaton, Asst. to Principal and Com. Substitute ..	59 Pine St.	1,680
Esther Elliot, Asst. to Principal and Gen'l Substitute ...	25 Fairview St.	1,480
Edith C. Erskine, English, German and Botany	25 Clark Road	1,580
Ethel M. Everett, Ancient History and Algebra	74 Fort Hill Ave.	1,780
Bertha W. Ferguson, Bookkeeping and Penmanship	100 Myrtle St.	1,780
Florence R. Foote, Algebra and French	28 Wannalancit St. ..	1,780
John J. Gardner, Algebra	17 Waterford St.	1,480
Grace M. Goodhue, Ancient History and Latin	120 School St.	1,780
Peter J. Gulesian, Manual Training	Blanchard Ave., Billerica Centre	2,270
E. Irene Hogan, English and Algebra	117 Clark Road	1,280
Bessie E. Huntoon, Physiology and French	64 Warwick St.	1,780
Elizabeth Irish, English, Algebra and Geometry	11 Willow St.	1,280
Mary C. Joyce, Voice Training and Expression	82 Eleventh St.	1,780
Mary H. Kilpartrick Commercial Geography and English.	27 Maryland Ave.	1,780
Genieve E. Lawrence, Commercial Geography and Algebra.	53 Berkeley Ave. ..	1,580
Frances R. H. Leggat, Physical Instructor	640 Broadway	1,380
Albert D. Mack, Head of Com'l Dept. and Bookkeeping ..	17 Summit St.	2,570
Mary L. Martin, Latin and English	39 Durant St.	1,780
H. Estelle Moors, Engl'sh, Algebra and Com. Geography.	104 Moore St.	1,480
Elizabeth H. Murphy, French, Com. Law, Com. Arithmetic 159 White St, ...		1,780
Donald R. MacIntyre, Physical Instructor	Y. M. C. A.	2,200
John D. McKinley, Latin and German	474 Beacon St.	1,740
Loretto A. McManmon, English and Algebra	Dracut St.	1,480
Ellen E. McQuade, English and German	318 Andover St.	1,680
Flora A. Owen, Bookkeeping, Stenography, Typewriting.	42 Huntington St. ..	1,780
Esther A. Owens, English	4 Belmont St.	1,280
Joseph G. Pyne, Greek, English, Physiology, Irish History, 823 Central St.		2,270
Gertrude A. Rodliff, English	Chelmsford Centre ...	1,780
Myrtle Rooney, Physical Instructor	238 Pine St.	
Ida L. Samuels, Stenography and Bookkeeping	56 Fifth Ave.	1,780
John J. Savage, English and Greek	34 Benton Road, Somerville	2,010
Ruth L. Sawyer, English and Algebra	169 Fairmount St.	1,380

ROLL OF TEACHERS

Charles E. Seede, Manual Training	476 Merrimack St.	2,370
Millie A. Severance, Physics and English	302 Stevens St.	1,780
James A. Shanley, Bookkeeping and Penmanship	364 Lawrence St.	2,270
Margaret V. Spear, French	576 Westford St.	1,780
Mary G. Stevens, English	126 Fort Hill Ave. ..	1,780
Alice O. Stickney, English, Astronomy and Geology	599 School St.	1,780
Morton A. Sturtevant, Head of the English Dept.	50 Rea St.	2,370
Edward J. Thompson, Spanish	Chelmsford Centre ...	1,870
Mary E. Tobin, English, Com. Law and Arithmetic	52 Highland St.	1,780
Susie L. D. Watson, Geometry and United States History ..	390 E. Merrimack St. ...	1,780
Nathan Pulsifer, M. D., Medical Director	473 Beacon St.	200
Major Colby T. Kittredge, Military Instructor	48 So. Walker St.	1,000

Janitors

Michael J. Lynch	10 Orford
Herbert R. Baker	9 Shedd St.
Arthur H. Dana	25 Third St.
Michael H. Finnegan	141 Fayette St.
William Mack	37 May St.
Bernard H. Maguire	55 Grove St.
John J. Moran	43 Anderson St.
Charles E. Thornton	50 Highland St.

GRAMMAR SCHOOLS

BARTLETT SCHOOL

Wannalancet Street

(Normal Training School)

Charlotte M. Murkland, Principal	179 Pine St.	\$2,240
Sara E. Ames, gr. 9, 8, 7, History, Civics and Sewing	418 Walker St.	1,480
Kathleen E. Driscoll, gr. 9, 8, 7, Geography	47 Grace St.	1,480
Katherine F. Farley, gr. 5	Lowell, R. F. D. No. 3	1,480
Barbara E. Ham, gr. 6	14 Belmont St.	1,050
Eleanor J. LeLacheur, gr. 4	128 Fourth Ave.	1,480
Belle A. Prescott, gr. 9, 8, 7, Literature and Drawing	68 Mt. Washington St.	1,480
Maria W. Roberts, gr. 5	50 Mt. Vernon St.	1,480
Charles E. Seede, Manual Training	476 Merrimack St.	540
M. Beatrice Shea, gr. 9, 8, 7, Penmanship, Hygiene, Office ..	267 Walker St.	1,240
Celia Standish, gr. 9, 8, 7, English Composition	96 Grove St.	1,580
Alice D. Sunbury, gr. 9, 8, 7, Gram., Domestic Science ..	179 Pine St.	1,580
Amy L. Tucke, gr. 9, 8, 7, Algebra, Arithmetic and Music ..	111 Butterfield St.	1,480
Mary F. Wallace, gr. 6	98 Grove St.	1,160
Temporary Assignment, gr. 4 and 5		
Temporary Assignment, gr. 4		

Janitors

Thomas F. Hannafin	15 Sargent St.
John J. Shields	120 Bartlett St.
John T. Rogers	384 Concord St.

BUTLER SCHOOL

Gorham Street

Tel. 2186

Thomas A. Ginty, Master	117 Andover St.	\$1,900
Della T. Brady, gr. 7	183 Chapel St.	1,480
Helen L. Clark, gr. 6	222 High St.	1,480
Marguerite J. Cronin, gr. 9	228 Plain St.	1,480
Mary E. Crowley, gr. 5	75 Liberty St.	1,480

ROLL OF TEACHERS

51

Annie J. Devine, gr. 6	154 Carlisle St.	1,480
Peter J. Gulesian, Manual Training	31 Temple St.	400
*Margaret G. Hyde, gr. 4	900 Central St.	1,480
**Sara D. Ivers, gr. 4	East Chelmsford	1,480
Katherine E. Kelley, gr. 7	74 Gates St.	1,480
Mary E. Lane, gr. 8, Domestic Science	12 Ellsworth St.	1,580
Mary L. McSorley, gr. 5	19 Huntington St.	1,480
Nellie F. Murphy, gr. 9	85 Sherman St.	1,480
Alice C. O'Brien, gr. 6	300 Wilder St.	1,480
*Mary G. Quinn, gr. 4	28 Chapel St.	1,480
Margaret K. Riordan, gr. 5	8 Suttle Ave.	1,480
Sadie E. Tully, gr. 8	111 Westford St.	1,480

Janitors

*Room in Carter Street School.

**Room in Weed Street School

Terrence F. Casey	163 Howard St.
Thomas M. Keegan	22 Ellsworth St.

COLBURN SCHOOL

Lawrence Street, near Charles

Tel. 2178

Helen M. Shean, Principal	260 High St.	\$1,900
Anna J. Cawley, gr. 8	85 Rogers St.	1,400
Sadie A. Connor, gr. 6	73 Pleasant St.	1,480
Elizabeth A. Conway, gr. 5	219 Church St.	1,480
Caroline A. Downey, gr. 5	56 Huntington St.	1,400
Julia M. Driscoll, gr. 7	47 Grace St.	1,480
Margaret C. Fox, gr. 9	3 Eddy St.	1,480
Louise C. Thomas, gr. 4	85 Eleventh St.	1,480
Temporary Assignment.		

Janitor

Patrick J. Mahoney	16 Lyon St.
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EDSON SCHOOL

Highland Street

Leo A. King, Master	4 Astor St.	\$2,440
Mary F. Concannon, gr. 7	204 Pleasant St.	
Anna E. Donovan, gr. 7	26 Madison St.	1,480
Marianna L. Donovan, gr. 4	256 Branch St.	1,580
Kate J. Hayes, gr. 6	15 Floyd St.	1,480
Delia C. Maloney, gr. 5	70 Elm	\$1,480
Helen L. Mansfield, gr. 4	12 White	1,160
Margie F. Marren, gr. 6	86 Rolfe	1,480
Anna T. McCarron, gr. 4	228 High	1,580
Maretta E. O'Neil, gr. 8	11 Carter Ave.	1,400
Frances M. Webster, gr. 9	45 Varney	1,480

Janitors

John H. Condon	96 Midland
William P. Black	900 Central

ROLL OF TEACHERS

GREEN SCHOOL

Merrimack Street

Elizabeth Provencher, Prin., gr. 9	22	West Bowers	\$1,780
Hannah M. Barrows, gr. 9	19	Newhall	1,480
Agnes T. Courtney, gr. 5	11	Marsh	1,480
Mary F. Devine, gr. 8	1527	Gorham	1,480
Carrie E. Erskine, Special	74	Fort Hill Ave.	1,480
Jeanne E. Fay, gr. 6	115	Stackpole	1,480
Mary V. Johnson, gr. 4	183	Wilder	1,480
Jane T. Johnston, Special	33	Webber	1,080
Katherine M. McCarthy, gr. 5	647	Market	1,480
M. Alice McCue, gr. 6	536	Rogers	1,480
Lizzie A. Nolan, gr. 7	210	Pawtucket	1,480
*Katherine C. O'Neill, Special	175	Walker	1,480
A. Lillian Walsh, gr. 4, Domestic Science ..	145	Mammoth Road	1,340

Janitors

Oscar W. Brown	35	Livingston Ave.
William S. McKenzie, Jr.	87	Gershom Ave.

*Temporary assignment, Continuation Class at Hamilton Mill.

GREENHALGE SCHOOL

Ennell Street, Centralville

Arthur K. Whitcomb, Master	2	Belmont	\$2,820
Mary Alice Cochrane, gr. 7	230	Cabot	1,480
Mary M. Cowell, gr. 7 and 8	22	London	1,240
Josephine S. Dunlavy, gr. 5	76	Canton	1,480
Esther G. Donlan, gr. 9, Domestic Science ..	756	Westford	1,580
Alice L. Joyce, Special	82	Eleventh	1,240
Helen Kohawn, gr. 4	63	Thirteenth	1,480
Annie L. Mahoney, gr. 4	22	Burlington Ave.	1,480
Alice A. Masterson, gr. 5	35	Oak	1,480
Ellen T. Muldoon, gr. 8	998	Lakeview Ave.	1,400
Leona M. Small, gr. 6	46	Whitney Ave.	1,480

Janitors

John Barrett	19	Burnside
David E. Cornock	848	Bridge

ABRAHAM LINCOLN SCHOOL

Chelmsford Street

Tel. 2108

*James L. Mellen, Master	74	Pentucket Ave.	\$2,820
D. Murray Cummings, Master	29	Huntington St.	
Margaret T. Donovan, gr. 6	42	Claire	1,480
Mabel W. Ewings, gr. 5	3	Astor	1,480
Ellen L. Floyd, gr. 4	124	Stevens	1,480
Irma V. Hodgman, gr. 9	632	Westford	1,480
Margaret S. Jamieson, gr. 5	19	West Forrest	1,480
Harriett L. McAloon, gr. 8	112	Sixth	1,000
Margaret G. McDonald, gr. 6	397	Broadway	1,480
Elsie M. Puffer, gr. 4	942	Middlesex	1,480
Dorothy F. Riordan, gr. 7	8	Suttle Ave.	1,000
Margaret M. Sparks, gr. 9	169	Fort Hill Ave.	1,480
Bride T. Sweeney, gr. 7	138	Pleasant	1,480
Sadie A. Taff, gr. 8	235	Stackpole	1,160

*Died Feb. 12, 1920.

Janitors

Edward Cullen	9	Auburn
Thomas F. Quinn	30	Weed

ROLL OF TEACHERS

53

MOODY SCHOOL

High and Rogers Streets

William S. Green, Master, Arithmetic	302 Nesmith	\$2,820
Katherine F. Baker, gr. 8, Composition and Literature	665 Andover	1,480
Mary F. Carolan, gr. 9, Arithmetic and Domestic Science	256 Concord	1,240
Celia B. Wood Donovan, gr. 7, Grammar ..	92 Fort Hill Ave.	1,080
Frances E. Garrity, gr. 5	74 Stevens	1,480
Frances E. Hardman, gr. 5	18 Astor	1,480
Gertrude A. Hession, gr. 6	134 Pleasant	1,160
Fannie G. Hobbs, gr. 4	150 Fort Hill Ave.	1,480
Mae A. Hogan, gr. 6	399 Walker	1,180
Cora E. Jones, gr. 4	62 Huntington	1,480

Janitors

John O'Connor	102 Pleasant
Bernard Tracy	64 Chapel

CHARLES W. MOREY SCHOOL

Pine and Wilder Streets

William W. Dennett, Master	400 Stevens	\$2,820
Lillian E. Alister, gr. 5	71 Wedge	1,480
Leonora K. Battles, gr. 8	21 Chester	1,480
Ella M. Breen, gr. 6	17 Florence Ave.	1,480
Anna A. Burnham, gr. 7	242 Liberty	1,480
Anna T. Coffey, gr. 8	189 Wilder	1,480
Annie V. Donoghue, gr. 9	11 Wesley	1,480
Mary F. Foss, gr. 9, Domestic Science	Chelmsford Center	1,480
Hazel A. Gardner, gr. 5 and 6	15 Columbus Ave.	1,080
Minnie C. Gray, gr. 6	106 Liberty	1,480
C. Ethel Hale, gr. 7	15 Robbins	1,480
Charlotte A. Parsons, gr. 4	485 Westford	1,480
*Gertrude Ready, gr. 4	87 Fulton	1,000
Grace Scribner, gr. 4	70 Tyler Park	1,480
Lulu Turner, gr. 5	33 Warwick	1,480
Katherine M. Usher, gr. 6 and 7	32 So. Walker	1,480
**Grace F. Ward, gr. 5	438 Westford	1,480
Estelle L. Whitney, gr. 9	13 Oakland	1,480

*Died Feb. 13, 1920.

Janitors

Elmer E. Harder	1066 Middlesex
Harrison L. Morgan	36 Waite

**Room in Franklin School.

PAWTUCKET SCHOOL

Mammoth Road, Pawtucketville

William P. Barry, Master	1280 Middlesex	\$2,820
Delia F. Briscoe, gr. 8	Lowell, Mass., R. F. D. No. 3	1,480
Anna I. Cassidy, gr. 6	4 Fifth Ave.	1,480
Corinna G. Cover, gr. 4	16 Lombard	1,480
Clotilda A. Delany, gr. 4	82 Colonial Ave.	1,480
Alice G. Donohoe, gr. 5	50 Linden	1,400
Goldie M. Gardner, gr. 5	15 Columbus Ave.	1,480
Lore'ta M. Kinsela, gr. 6	50 B	1,240
Lettie R. McMaster, Open Air Room	56 Rolfe	1,320
Julia B. Riordan, gr. 9	27 Woodward Ave.	1,580
Temporary Assignment†, gr. 8		
Temporary Assignment, gr. 7		

Janitors

James S. Somerset	104 Woodward Ave.
John Roarke	9 Sixth Ave.
Charles E. Clark	11 Carter

ROLL OF TEACHERS

RIVERSIDE SCHOOL

Woburn Street, Wigginvillle

Rosale T. Burns, Prin., gr. 8 and 9	39 Whitehead Ave.	\$1,780
Elizabeth A. Gilinson, gr. 5 and 6	3 Bourne	1,480
Christine M. Kane, gr. 4 and 5	339 High	1,480
Harriet L. Wheeler, gr. 6 and 7	64 Morton	1,480

Janitor

John H. D. Toy	7 Nelson Ave.
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VARNUM SCHOOL

Myrtle Street, Centralville

Elizabeth C. Kennedy, Prin., gr. 9, Lan- guage and Grammar	223 Pine	\$1,780
Florence E. Archibald, gr. 5	198 Third	1,480
Susan F. Burbank, gr. 5	Chelmsford Centre	
Rose A. Dowd, gr. 6	127 Beacon	1,480
Agnees T. Fay, gr. 6	123 Third	1,480
Mary A. Fay, gr. 7	123 Third	1,480
Grace E. Frye, gr. 8, Domestic Science	93 Vernon	1,580
Ruth F. Hathaway, gr. 4	106 Durant	1,160
Ada E. Hoole, gr. 4	24 Beech	1,480
Margaret F. Howe, gr. 5	208 South	1,480
Alice R. Keese, gr. 5	168 Sixth	1,480
Alice F. Morrill, gr. 4	32 Myrtle	
Mary R. Seery, gr. 7	127 Beacon	1,480
H. Madeline Sullivan, gr. 7	250 Rogers	1,000
Grace M. Thurber, gr. 9, History, Arith- metic and Geography	42 Mansur	1,480
Charlotte C. Walsh, gr. 8, Music	85 Eleventh	1,480

Janitors

John H. Nolan	65 Fulton
William J. Hunt (2nd)	3 Fourth

WASHINGTON SCHOOL

Lang Street, near Inland

Tel, 3529

John E. Parr, Master, Literature	168 Sixth	\$2,820
Carrie L. Brown, gr. 4	18 Bourne	1,480
Helen A. Dow, gr. 9, 8, Algebra and Grammar	149 B	1,480
Clara M. Everett, gr. 9, 8, Composition and Drawing	75 Beacon	1,480
Rose C. Geary, gr. 9, 8, History	49 Whipple	1,400
Laura F. Green, gr. 5	179 Warwick	1,580
Sara Swan Griffin, gr. 6	121 So. Walker	1,480
Gertrude T. Keves, gr. 9, 8	62 Pine	1,400
Myrtle M. Killpartriek, gr. 4, Cooking	27 Maryland Ave.	1,480
Louise F. Mahoney, gr. 5	550 Westford	1,000
Olive J. Palm, gr. 7	806 Stevens	1,480
Esther A. Sanders, gr. 6	79 Methuen	1,320

Janitors

David H. Angluin	27 Crowley
Thomas A. Green	512 Gorham
James A. Buckley	190 High

PRIMARY SCHOOLS

The Grammar School to which each primary belongs is indicated in parentheses.

Alice T. Lee, Supervisor of Primary Grades 12 So. Walker St.\$1,800
Office Hours—Mondays, Wednesdays and Fridays, 3.45 to 4.45 p. m. at the
office of the Superintendent of Schools.

AGAWAM STREET (Butler)

Mary A. Fay, Prin., gr. 3 and 2 115 Stackpole
Anna M. Higgins, gr. 3, 2, 1 North Billerica\$1,530

Janitor

John H. Hallett 17 London

AMES STREET (Colburn)

Lawrence and Ames Streets

Euse E. MacVey, Prin. gr. 2 46 Linden\$1,530
Julia C. O'Sullivan, gr. 1 105 Mt. Washington 1,180
Mary C. Timmons, gr. 3 326 Concord 1,480

Janitor

John T. McCarty 17 Westwoods

BARTLETT

(In Bartlett School)

Grace C. Delany, gr. 3 82 Colonial Ave.
Regina B. Frappier, gr. 3 26 Hampshire\$1,320
Emma M. Graham, gr. 2 419 Chelmsford 1,480
Francis C. Moriarty, gr. 1 144 Wilder 1,240
Mary E. Snow, gr. 1 89 School 1,480
Temporary Assignment, gr. 2

BILLINGS STREET (Greenhalge)

Annie M. Robbins, Prin. gr. 3 and 2 116 Highland Ave.\$1,530
Elizabeth H. Seede, gr. 1 24 Warwick 1,480

Janitor

James Hounsell 704 Bridge

CABOT STREET (Green)

Mary T. Whelley, Prin., gr. 3 254 Parkview Ave.\$1,530
Joretta A. Hannafin, gr. 2 15 Sargent 1,480
Ellen F. Lynch, gr. 2 137 Riverside 1,480
Mary J. Murphy, gr. 1 34 Butterfield 1,480

Janitor

John E. Hart 86 West

ROLL OF TEACHERS

CARTER STREET (Butler)

Katherine F. Brady, Prin., gr. 1	173	Chapel	\$1,530
Henrietta I. Grady, gr. 2	39	Lundberg	1,240
Helen R. Halloran, gr. 3	546	E. Merrimack	1,180
Temporary Assignment			
Special Class			

Janitor

Timothy Moynihan	38	Whipple
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CENTRAL STREET (Colburn)

Elizabeth G. Lawler, Prin., gr. 3, 2	260	High	\$1,530
Helen A. Drury, gr. 1	348	Wilder	1,480

Janitor

William P. Black	900	Central
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CHARLES STREET (Edson)

Alice T. Owens, Prin., gr. 3	4	Belmont	\$1,530
Ella E. Gardner, gr. 2 and 1	366	Walker	1,480
Marietta G. Gormley, gr. 2	22	Lyon	1,480
Margaret A. Harrahan, gr. 1	114	Bellevue	1,480

Janitor

James F. Leary	249	E. Merrimack
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COLBURN (Colburn)

Anna M. Courtney, Prin., gr. 3, 2	445	Merrimack	\$1,530
Elizabeth R. Connell, gr. 1	19	Fort Hill Ave.	1,400
Mary A. Hartley, Special	358	Walker	1,480
Gertrude B. McQuade, gr. 1	225	Summer	1,480

Janitor

John Scott	23	Meadowcroft
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CROSS STREET (Bartlett)

Cross Street, between Fletcher and Mt. Vernon Streets

Ida J. Clarke, Prin., gr. 3	96	Grove	\$1,530
Anna T. Coburn, gr. 2	39	Arlington	1,480
Katherine E. Kelly, gr. 1	434	Fletcher	1,480

Janitor

William H. Kennedy	73	Fletcher
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ROLL OF TEACHERS

57

DOVER STREET (Morey)

Dover Street, between Middlesex and Grove Streets

Clara B. Horne, Prin., gr. 3	106	Chestnut	\$1,530
Clementine H. Bowers, gr. 2	60	Loring	1,480
Bertha Gardner, gr. 1	32	Robbins	1,480

Janitor

Frank J. Burch	24	So. Canton
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ELIOT (Edson)

Favor and Summer Streets

Ellen A. Stillings, Prin., gr. 2	24	Bellevue	\$1,530
Ellen A. Corbett, gr. 3	32	Highland	1,480
Loyola McCann, gr. 1	17	Wentworth Ave.	1,486
Neillie T. O'Grady, gr. 2	625	Central	1,480

Janitor

Charles J. McCabe	318	High
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FRANKLIN (Morey)

Branch and Middlesex Streets

Kate G. Jones, Prin., gr. 1	240	Jewett	\$1,530
Ethel H. Chalifoux, gr. 2	157	Mt. Vernon	1,180
Minnie Owens, Special	4	Belmont	1,240
Mary E. Richardson, gr. 3		Chelmsford	1,480

Janitor

Joseph Provost	54	Queen
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GRAND STREET (Lincoln)

Marion E. Greene, Prin., gr. 3	405	Westford	\$1,530
Jennie M. Bennett, gr. 2	81	Gates	1,480
*Mary J. Moynahan, gr. 1	28	Windsor	1,480
*Room in Howard Street School			

Janitors

Ernest McGowan	91	West Third
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GREENHALGE

(In Greenhalge School)

Ruth Crowell, gr. 1 and 2	69	Fort Hill Ave.	\$1,480
Mary G. Dudley, gr. 2	126	Coburn	1,000
Blanche E. Marshall, gr. 1	445	Merrimack	1,480
Martha Rogers, gr. 3	131	Cumberland Road	1,480

ROLL OF TEACHERS

KIRK STREET (Green)

Eliza A. Davis, Prin., gr. 3, 2, 1 Billerica, P. O. Box 147\$1,530

Janitor

Patrick J. Clark 199 Pleasant

LAKEVIEW AVENUE (Greenhalge)

Lakeview Avenue

Margaret J. McCluskey, Prin., gr. 3 246 Methuen\$1,530

Anna F. Joyce, gr. 1 82 Eleventh\$1,480

Katharine P. O'Brian, gr. 2 28 West Adams 1,480

Janitor

Joseph F. Nephen 39 West

LAURA LEE (Washington)

Plain and Powell Streets

Flora H. Sprague, Prin., gr. 3 110 Branch\$1,580

Sara M. Dean, gr. 1 14 Belmont 1,480

Lena M. Robinson, gr. 3, 2 68 So. Walker 1,480

Lilla M. Stanley, gr. 1 2 Horn 1,480

Janitor

William J. Hunt 17 A

LEXINGTON AVENUE (Pawtucket)

Carrie M. Hart, Prin., gr. 1, 2, 3, 4, 5 80 Tyler Park\$1,530
Temporary assignment.

Janitor

Timothy F. Rohan 65 Claire

LONDON STREET (Butler)

London and Autumn Streets

Elizabeth R. Maguire, Prin., gr. 3 53 Nesmith\$1,530

Margaret L. Hagerty, gr. 2, 1 17 Bellevue 1,480

*Mary F. Hill, gr. 2, 1 Chelmsford, Mass. 1,480

*Room in West London Street School.

Janitor

Peter J. Hunt 57 Greendale Ave.

ROLL OF TEACHERS

59

LYON STREET (Butler)

Lyon and Central Streets

Kate F. Murphy, Prin., gr. 3 and 2	870	Gorham	\$1,530
Katherine C. Early, gr. 1, 2	256	E. Merrimack	1,480
Mary J. McCarry, gr. 1, 2	1600	Gorham	1,480

Janitor

John J. Manchester 47 Hurd

MIDDLESEX VILLAGE (Morey)

Middlesex and Cornell Streets

Harriet F. Wakefield, Prin., gr. 5, 6	79	Stevens	\$1,530
Gertrude E. Dane, gr. 1 and 2	222	Gibson	1,480
Mary J. Reardon, gr. 3 and 4	16	Marginal	1,180

Janitor

P. Henry Driscoll 16 Edwards

NEW MOODY STREET (Pawtucket)

New Moody Street

Addie B. Merrill, Prin., gr. 3	465	Bridge	\$1,530
Two Temporary Assignments			

Janitor

Thomas J. McGee 83 White

PAWTUCKET PRIMARY

(In Pawtucket School)

Eugenia L. Hogan, gr. 3	106	Avon	\$1,480
Maude M. Hardy, gr. 2		Chelmsford, Mass.	1,480

Temporary Assignment, gr. 1

PINE STREET (Morey)

Pine and Gibson Streets

Carrie J. Bailey, Prin., gr. 3	56	Loring	1,530
Helen D. Swain, gr. 1	418	Walker	1,480
Grace I. Washburn, gr. 2	390	Walker	1,480

Janitor

Joseph M. Hunt 169 Broadway

ROLL OF TEACHERS

POND STREET (Moody)

Pond and High Streets, Belvidere

Adelaide Crowley, Prin., gr. 1	115	Fort Hill Ave.	\$1,530
*Maud E. Green, gr. 1	238	E. Merrimack	1,480
Mary I. Halloran, gr. 2	546	E. Merrimack	1,480
**Alice E. Ramsay, gr. 3	21	Myrtle	1,480
*Room in High Street School.			
**Room in Moody School.			

Janitor

Timothy F. Harrington 156 Andover

POWELL STREET (Morey)

Powell Street, near Liberty

Viola A. Hamblett, Prin., gr. 1	58	Bellevue	\$1,530
Ellen J. Piper, gr. 3 and 2	55	Norcross	1,480

Janitor

James A. Buckley 190 High

RIVERSIDE

(In Riverside School)

Charlotte O. Lowe, gr. 1	2010	Middlesex	\$1,480
Etta M. Smith, gr. 3 and 2	1118	Lawrence	1,480

SYCAMORE STREET (Moody)

Sycamore Street

Florence E. Rowell, Prin., gr. 3, 2	65	Huntington	\$1,530
Elizabeth B. Dame, gr. 2 and 1	3	Parkview Ave.	\$1,530
Catherine T. Gillick, gr. 2 and 3	998	Lakeview Ave.	1,240

Janitor

Dennis A. Harrington 495 High

TENTH STREET (Varnum)

Cor. Tenth and Varnum Streets

Mary F. Beane, Prin., gr. 3	212	Tenth	\$1,530
Alice M. French, gr. 1	21	May	1,480
Alice A. Holtham, gr. 1 and 2	1107	Bridge	1,480
Fannie H. Murphy, gr. 2	42	Twelfth	1,480

Janitor

Winfield S. Cross 55 Seventh

ROLL OF TEACHERS

61

WASHINGTON

(In Washington School)

Edith A. Howitt, gr. 1	169	Merrimack	\$1,480
Annie E. Irving, gr. 2 and 3	783	Lawrence	1,480
Alberta M. McQuesten, gr. 1 and 2	118	D	1,080

WEED STREET (Butler)

Lilla M. McEvoy, gr. 2 and 3	210	Pawtucket	\$1,530
Alice F. Seeton, gr. 1	159	Mammoth Road	1,480

Janitor

John N. Palm	369	Lawrence
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WEST SIXTH STREET (Varnum)

West Sixth Street, between Coburn and Jewett Streets, Centralville

Stella J. Allen, Prin., gr. 3	115	Third	\$1,530
Elizabeth F. Lamere, gr. 2	281	E. Merrimack	1,480
Mabel A. Metcalf, gr. 1 and 2	93	Vernon	1,480
Laura H. Palmer, gr. 1	78	Hildreth	1,480

Janitor

Adam McElroy	670	Bridge
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WORTHEN STREET (Green)

Worthen Street, between Market and Broadway

Esther V. Green, Prin., gr. 2	434	Westford	\$1,530
Mary R. Marren, gr. 3	86	Rolfe	1,480
Mary E. Meehan, gr. 1	228	Worthen	1,480

Janitor

Patrick J. Clark	199	Pleasant
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KINDERGARTENS

AGAWAM STREET

(In Agawam Street Primary)

Sarah G. Sparks, Prin.	59	Elm	\$1,240
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BARTLETT

(In Bartlett School)

Helen W. Noyes, Prin.	102	Butman Road	\$1,100
Evelyn L. Staples	14	Belmont	950

ROLL OF TEACHERS

CENTRAL STREET

(In Central Street Primary)

Gladys V. Parsons	158 Hale	\$1,000
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CHARLES STREET

(In Colburn Primary)

Mabel D. Nickerson, Prin.	125 Clark Road	\$1,240
S. Alice Knapp	305 E. Merrimack	1,180

DOVER STREET

(In Dover Street Primary)

Elizabeth A. Wilson, Prin.	15 So. Canton	\$1,240
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FRANKLIN

(In Franklin Primary)

(11 Wave)

N. Grace Taylor, Prin.		\$1,240
Helen S. Livingston	39 Garden Road	1,050

HOWARD STREET

(In Howard Street Primary)

Gertrude A. Roberts, Prin.	Chelmsford, Mass., P. O. Box No. 61	\$1,240
Theresa L. White	158 Dartmouth	1,050

LAKEVIEW AVENUE

(In Lakeview Avenue Primary)

Celina L. Lalime, Prin.	28 Flemings	\$1,240
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LAURA LEE

(In Laura Lee Primary)

Katharine M. Crowley, Prin.	115 Fort Hill Ave.	\$1,240
Doris Childs	256 Gibson	1,050

MOODY

(In High Street Primary)

Marietta King, Prin.	205 Stackpole	\$1,240
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ROLL OF TEACHERS

63

PAWTUCKET

Mammoth Road

Hortense Tabor, Prin.	82 Riverside	\$1,240
Helen L. Eveleth	Thorndike	1,000

Janitor

Charles E. Clark	11 Carter	
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PINE STREET

(In Pine Street Primary)

Louie I. Smith, Prin.	19 Holden	\$1,240
Hortense M. Lamere	13 Ralph	1,000

VARNUM

(In Varnum School)

Ella M. Penn, Prin.	31 Sanders Ave.	\$1,240
Marion Simpson	67 Methuen	1,120

WEED STREET

(In Weed Street Primary)

Gertrude B. Crowley, Prin.	115 Fort Hill Ave.	\$1,240
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VOCATIONAL SCHOOL

Mann School Building, Broadway

Tel. 2932

Thomas F. Fisher, Principal	121 Livingston Ave.	\$2,900
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Assistant to Principal

Margaret E. McCann	196 Aiken Ave.	1,000
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Sub-Master and Head of Machine Department

Maurice A. Butterfield	12 June	2,300
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Instructor of Auto Repairing

George H. Dozois	11 Spaulding	1,900
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Teacher of Mechanical Drawing

James J. Gearon	Y. M. C. A.	1,700
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Instructor of Auto Repairing

John J. Gildee	782 Merrimack	1,700
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Teacher of Academics

John H. Gillick	18 Fred	1,700
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ROLL OF TEACHERS

Teacher of Shop Science

William B. Hilliard 589 School 1,700

Head of Electrical Department

Chester W. MacDonald 22 Bellevue 2,100

Electrical Instructor

Ernest A. Shafter 373 Beacon 1,800

Instructor of Machine Shop Practice

Charles J. Welsh 77 Billings 1,700

Head of Woodworking Department

Fred F. Wiggin Chelmsford, Mass. 2,000

Janitor

George P. Daley 98 Walker

Oiler

Thomas S. Crowley 79 W. Fourth St.

GIRLS' DEPARTMENT**Morrill School Building**

Esther M. Downing 434 Westford \$1,680

Head of Cooking Department

Ruberta M. Bramhall 84 Tenth

Teacher of Sewing

Agnes R. Burns 427 Lakeview Ave. 1,300

Teacher of Academics

Ruth Howe 981 Varnum Ave. 1,300

Teacher of Millinery

Mary H. Mehan Bridmar Chambers, Fletcher St. 1,360

Head of Dressmaking Department

Anna M. O'Day 599 Central 1,420

Teacher of Cooking

Ruth Upton 63 Mt. Vernon \$1,300

Temporary Teacher of Cooking

Helen G. Pollycutt 336 E. Merrimack 950

Janitor

Theodore Towner 13 Third

SPECIAL TEACHERS**Musical Director**

Frederick O. Blunt 392 Chelmsford \$2,000

Assistant in Music

Jessie M Hagar 418 Walker 1,550

Supervisors of Drawing

Add'e E. Edwards 32 Majestic Chambers \$1,550

Helene R. Abels 43 Nicollet 1,480

Teachers of Sewing

Ida J. Flint	200 Liberty	\$1,540
Esther M. Owens	4 Belmont	1,410
Grace E. Stevens	Chelmsford, Mass.	1,240

Manual Training

Ralph A. Luce	Chelmsford, Mass., R. F. D. No. 1, ...	\$2,000
Arthur Lundwall	9 Osgood Avenue	1,600
Charles J. Rogers	164 Pine St.	2,000

Physical Director in Elementary Schools

Major Walter R. Jeyes	67 Gates	\$1,400
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Assistant to Physical Director

Nelle D. Horner	353 Westford	1,100
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Organizer of Special Classes

Vera E. Groves	169 Merrimack	\$1,600
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Supervisors of Penmanship

Ferd Albinson	8 Newbury	\$300
Albert D. Mack	17 Summit	300
James A. Shanley	364 Lawrence	300

Dental Clinic

(In Worthen Street School)

Dr. E. A. Kent	11 Harris Ave.	\$1,000
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Assistant to Dentist

Eva M. Lantagne	14 Albion	400
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SCHOOL PHYSICIANS**Giving Names of Schools Supervised**

C. Stoyke Baker, M. D.	77 Mansur	200
Colburn Gr., Colburn Pri., Edson, Ames St., Central St.		
John F. Boyle, M. D.	32 Whipple	200
Butler, Lyon St., Carter St., Weed St., London St.		
James J. Cassidy, M. D.	111 Riverside	200
Green, Charles St., Worthen St., Kirk St., Cabot St., Vocational—Boys' Dept.		
W nifred M. Wools-Devine, M. D.	27 Parkview Ave.	200
Pawtucket, Greenhalge, Lakeview Ave., New Moody St., Lexington Ave.		
George O. Lavalley, M. D.	790 Merrimack	200
Varnum, Billings St., West Sixth St., Tenth St.		
James Y. Rodger, M. D.	336 Worthen	200
Bartlett, Franklin, Cross St., Vocational—Girls' Dept.		
Charles M. Roughan, M. D.	105 Merrill Ave.	200
Moody, Riverside, Pond St., Agawam St., Sycamore St.		
Forster H. Smith, M. D.	West Meadow Road	200
Lincoln, Laura Lee, Grand St., Eliot		
Edward O. Tabor, M. D.	131 Methuen	200
Morey, Washington, Powell St., Middlesex Village, Dover St., Pine St.		

SCHOOL NURSES

Marguerite J. O'Dwyer	148 Midland	\$1,200
Marietta M. Dwyer	23 Sidney	1,200

ABSENT ON LEAVE

Ruberta M. Bramhall, Vocation School.	E. Belle Perham, Bartlett School.
Bethia S. Keith, Lincoln School	Mary E. Quirbach, High School.
S. Alice Knapp, Charles St. Kindergarten.	Essie E. Roche, Bartlett School.
Queenie A. Manchester, High School.	A. Gertrude Stiles, Bartlett School.

PERMANENT SUBSTITUTES

Mary T. O'Neill, 175 Walker.	Margaret M. Garvey, 144 Cumberland Rd.
Katherine L. Farley, Lowell, R. F. D. No. 3	M. Grace McCue, 536 Rogers.
Theresa Glynn, 86 Agawam.	Margaret C. Gookin, 824 Rogers.
Mary A. McKeon, 37 Orchard	Mary E. Gordon, 61 Loring.
Katherine M. O'Donnell, 148 Fort Hill Ave. Mary V. Coughlin, Cross.	

UNASSIGNED JANITORS

Patrick H. Kelley	31 Claire
George McWilliams	47 Agawam

EVENING SCHOOLS

EVENING HIGH SCHOOL

Henry H. Harris, Principal	93 Eleventh
E. Helena Rivet, Principal's Assistant	271 Beacon
Oston E. Beach	858 Chelmsford

Stenography III

Albertine Bernier	91 West Sixth
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Stenography II

Elmer G. Brennon	97 Georgia Ave.
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Commercial Arithmetic, Algebra and Geometry

C. Fred Campbell	245 Foster
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Manual Training

M. Mabel Cassidy	44 B
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Spelling, General and American History

Josephine A. Charbonneau	218 Riverside
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Stenography I

Alice L. Cluin	130 Fort Hill Ave.
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Elementary English

James F. Conway	115 Nesmith
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Physiology, Chemistry, and Rhetoric

D. Murray Cummings	29 Huntington
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Civil Service

Grace D. Donovan	256 Branch
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Advanced English and Advanced Spelling

Ruth L. Eaton	59 Pine
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Typewriting

Mary A. Egan	29 Cady
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Stenography III

Frank C. Gilbert	119 Stevens
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ROLL OF TEACHERS

67

Bookkeeping I

Peter J. Gulesian 81 Temple

Manual Training

Elizabeth Irish 11 Willow

Literature and Latin

Elizabeth C. Kennedy 223 Pine

Penmanship

Raymond J. Kenney 1 West View

Stenography I

Charles A. King 4 Astor

Bookkeeping II

Sara Laporte 76 June

French

Mildred E. Leeds 184 First

Stenography I

Albert D. Mack 17 Summit

Head of Commercial Department—Bookkeeping III

Addie B. Merrill 465 Bridge

Elementary Arithmetic

Ruth F. Murphy 56 Arlington

Stenography I

John D. McKinley 474 Beacon

Business Correspondence and Spelling

Loretto A. McManmon 57 Second Ave.

Commercial Geography, Advanced Grammar, and Civil Government

Adelaide E. Noyes 12 Osgood

Elocution

Frances O'Neil 517 High

Elementary Arithmetic

Flora A. Owen 42 Huntington

Typewriting

Joseph G. Pyne 823 Central

Advanced Arithmetic

Charles E. Seede 476 Merrimack

Manual Training II, III, IV

Margaret L. Seeton 12 Third Ave.

Stenography II

James A. Shanley 364 Lawrence

Bookkeeping I

M. Beatrice Shea 267 Walker

Penmanship

Alice O. Stickney 599 School

Rhetoric and Graduation English

Sadie A. Taff 235 Stackpole

Penmanship

Edward J. Thompson Chelmsford Centre

Physics and Spanish

Mary E. Tobin 52 Highland

Elementary English**ELEMENTARY EVENING SCHOOLS****EDSON**

Thomas A. Ginty, Principal 117 Andover
 Henrietta I. Grady 39 Lundberg
 Mary E. Lane 12 Ellsworth
 Hazel A. Gardner 15 Columbus Ave.
 Sadie E. Tully 111 Westford
 Delia C. Maloney 70 Elm

GREEN

John E. Barr, Principal 168 Sixth
 Hannan M. Barrows 19 Newhall
 Esther G. Donlan 756 Westford
 Agnes T. Fay 123 Third
 Mary A. Fay 123 Third
 Ruth F. Hathaway 106 Durant
 Elizabeth G. Lawler 260 High
 Mary R. Marren 86 Rolfe
 Alice A. Masterson 35 Oak
 Katherine C. O'Neill 175 Walker
 Elizabeth Provencher 22 West Bowers
 Dorothy F. Riordan 8 Suttle Ave.

Rooms in Cabot Street School**(For Girls Only)**

Charlotte O. Lowe North Chelmsford
 Ellen F. Lynch 138 Riverside

GREENHALGE

William W. Dennett, Principal 400 Stevens
 Catherine T. Gillick 998 Lakeview Ave.
 Annie M. Robbins 116 Highland Ave.
 Martha Rogers 131 Cumberland Road

EVENING VOCATIONAL SCHOOL**MEN'S DEPARTMENT****Automobile Department**

George H. Dozois 11 Spaulding
 John J. Gildee 782 Merrimack

Carpentry Department

Fred F. Wiggin Chelmsford

Electrical Department

Chester W. MacDonald 22 Bellevue

Engineering

Edwin Wells 178 Perry

Fireman

Daniel Callahan 22 Second Ave.

Machine Department

Maurice Butterfield, Dept. Head 12 June
Eddie Bean 486 Wilder
Michael Donahue 381 Dutton
Richard Fredericks 1079 Middlesex
William Hilliard 589 School
Charles Welsh 77 Billings
Guy Whitney 132 B

Plumbing

John H. MacGuinness 682 Broadway

GIRLS' DEPARTMENT

Practical Arts

Esther M. Downing, Dept. Head 434 Westford

Cooking Department

Ruberta M. Bramhall, Dept. Head 84 Tenth
Helen V. Beatty 362 East Merrimack
Helen O. Graves 270 Varnum Ave.
Katherine Humphrey 90 Chestnut
Katherine King 4 Astor
Mabel A. Metcalf 93 Vernon
Helen G. Pollycutt 336 East Merrimack
Modwena Rowlandson 136 Parkview Ave.
Mary Varnum 476 Varnum Ave.

Dressmaking Department

Anna M. O'Day, Dept. Head 599 Central
Mary V. Bradley 903 Gorham
Ida Lonergan 5 Ready's Ave.
Katherine McDonald 5 Varney
Margaret McGurn 110 So. Walker
Orina E. Mongrain 1050 Bridge
Elizabeth Regan 282 Concord
Nellie Rourke 33 Marion
Helen Rouse 201 Summer
Elzina Secord 445 Stevens
Rose Ward 635 Broadway
Helen Zollinger 19 Maryland Ave.

Machines

Agnes R. Burns 427 Lakeview Ave.
Mary H. Mehan Bridmar Chambers, Fletcher

Millinery

Annie Daly 33 Marion
Mary N. Devine 231 School
Margaret Harrington 211 Christian

Home Nursing

Helen F. O'Rourke 154 Shaw

SALARY SCHEDULE

In effect from November 1, 1919

High School

Head Master	\$3,700
Sub-Master	3,000
Men Teachers	\$1,480 to 2,270
(First year, \$1,480; second year, \$1,610; third year, \$1,740; fourth year, \$1,870; fifth year, \$2,000; sixth year, \$2,130; seventh year, \$2,270; department head, \$100 in excess of schedule salary.)	
Women teachers	\$1,180 to \$1,780
(First year, \$1,180; second year, \$1,280; third year, \$1,380; fourth year, \$1,480; fifth year, \$1,580; sixth year, \$1,680; seventh year, \$1,780.)	

Elementary Schools

Masters (Maximum reached in seventh year)	\$1,720 to \$2,820
Teachers	\$1,000 to \$1,480
(First year, \$1,000; second year, \$1,080; third year, \$1,160; fourth year, \$1,240; fifth year, \$1,320; sixth year, \$1,400; seventh year, \$1,480.)	

Principals of Primary Schools

.\$50 in addition to regular grade salary.

Kindergartens

Principals	\$1,240
Assistants	\$1,000 to \$1,180
(First year, \$1,000; second year, \$1,060; third year, \$1,120; fourth year, \$1,180.)	

Temporary Teachers

Men, per day	\$4.00
Women, per day	4.00
Kindergartens, per day	3.00

Special Teachers

Drawing	\$1,480 to \$1,550
Music	1,550 to 2,010
Sewing	1,240 to 1,540

TEACHERS' CERTIFICATES

Granted Since January 1, 1919

First Grade

James A. Dow, Boston University 1919	Lowell, Mass.
John J. Gardner, Boston College, 1919	Lowell, Mass.
Thomas A. Ginty, Holy Cross College, 1909	Lowell, Mass.
Thomas F. Pyne, Boston College, 1919	Lowell, Mass.

Second Grade

Esther A. Owens, Boston University, 1917	Lowell, Mass.
Frances H. O'Neill, College D'Youville, 1919	Lowell, Mass.
Alice F. D. Pearson, Smith College, 1901	Lowell, Mass.
Rachel Woodworth, Radcliffe College, 1918	Lowell, Mass.

Third Grade

Catherine T. Gillick	Lowell Normal
Edith A. Howitt	Lowell Normal
Nelle D. Horner	Lowell Normal
Sara D. Ivers	Lowell Normal
Mary T. Jones	North Adams Normal
Louise F. Mahoney	Lowell Normal
Harriet L. McAloon	Lowell Normal
Lettie R. McMaster	Lowell Normal
A. Gertrude Ready	Lowell Normal
Dorothy F. Riordon	Lowell Normal
Helen Madeline Sullivan	Lowell Normal

Fourth Grade

Helen L. Eveleth, Wheelock Kindergarten, 1919	Lowell, Mass.
Theresa L. White, Perry Kindergarten, 1919	Lowell, Mass.

Authorized Text Books

For

High and Elementary Schools

Adopted by the School Committee of
Lowell, Massachusetts, June, 1913

HIGH SCHOOL

ENGLISH

Adopted

Rhetoric	Brooks & Hubbard	American Book Co.
Enlarged Practice Book	Hitchcock	Henry Holt & Co.
The Odyssey	Church	The Macmillan Co.
Buchler	Gray	American Book Co.
Tales from Shakespeare	Lamb	Ginn & Co.
Last of the Mohicans	Cooper	D. C. Heath & Co.
House of Seven Gables	Hawthorne	Houghton, Mifflin Co.
Twice-Told Tales	Hawthorne	Houghton, Mifflin Co.
Iliad	Pope	Sibley & Ducker
Iliad	Bryant	Houghton, Mifflin Co.
Silas Marner	Eliot	Ginn & Co.
Julius Caesar	Shakespeare	D. C. Heath & Co.
Merchant of Venice	Shakespeare	Leach, Shewell & Sanborn
Macbeth	Shakespeare	Ginn & Co.
Lady of the Lake	Scott	American Book Co.
Ivanhoe	Scott	American Book Co.
Life of Johnson	Macaulay	Ginn & Co.
Sir Roger De Coverley	Addison & Steele	American Book Co.
L'Allegro and Il Penseroso	Milton	Longmans, Green and Ginn & Co.
Speech on Conciliation with America	Burke	Houghton, Mifflin Co.
Idylls of the King	Fennvson	Ginn & Co.
Vision of Sir Launfal	Lowell	Houghton, Mifflin Co.
Ancient Mariner	Coleridge	The Macmillan Co.
Chancer to Arnold	George	The Macmillan Co.
Essays of Elia	Lamb	Houghton, Mifflin Co.
Tales of a Wayside Inn	Longfellow	Houghton, Mifflin Co.
Grandmother's Story	Holmes	Houghton, Mifflin Co.

Supplementary

Rhetoric	Shackford-Judson	Sanborn & Co.
Handbook of Composition	Woolley	D. C. Heath & Co.
Exercises in English	Strang	D. C. Heath & Co.
Students' Hist. of English Literature	Simonds	Houghton, Mifflin Co.
Introduction to English Literature	Pancoast	Henry Holt & Co.
Self Cultivation in English	Palmer	Houghton, Mifflin Co.
Life of Goldsmith	Irving	Ginn & Co.
Tales of a Traveler	Irving	Longmans, Green & Co.
Palamon and Arcite	Dryden	Leach, Shewell & Sanborn

Sohrab and Rustum	Arnold	Henry Holt & Co.
Prologue to the Canterbury Tales	Chaucer	Houghton, Mifflin Co.
Essays on Clive and Hastings	Macaulay	Ginn & Co.
Washington's Farewell Address	Foster	Houghton, Mifflin Co.
Autobiography of Benj. Franklin		American Book Co.
Selected Essays	Emerson	American Book Co.
She Stoops to Conquer	Goldsmith	Houghton, Mifflin Co.
Twelfth Night	Shakespeare	Houghton, Mifflin Co.
King Lear	Shakespeare	D. C. Heath & Co.
Coriolanus	Shakespeare	Ginn & Co.
Henry Fifth	Shakespeare	Houghton, Mifflin Co.
Midsummer Night's Dream	Shakespeare	D. C. Heath & Co.
New Practice Book	Hitchcock	Henry Holt & Co.
High School English	Brubacher & Snyder	Chas. E. Merrill Co.
Business English	Davis & Lingham	Ginn & Co.
Rhetoric	Scott & Denny	Allyn & Bacon
Selections from Lincoln	Beave	Chas. E. Merrill Co.
Life of Johnson	Boswell	D. C. Heath & Co.
		Ginn & Co.
Pilgrim's Progress	Bunyan	American Book Co.
Birds & Bees	Burroughs	Houghton, Mifflin & Co.
Tale of Two Cities	Dickens	D. C. Heath & Co.
American Poems	Gaston	Chas. E. Merrill Co.
Vicar of Wakefield	Goldsmith	American Book Co.
		Allyn & Bacon
Sketch Book	Irving	Houghton, Mifflin & Co.
Selected Ballads and Lyrics	Lodge	Houghton, Mifflin & Co.
Leaflets	Lowell	Houghton, Mifflin & Co.
Old Testament Narratives	Nettleton	Henry Holt & Co.
Odyssey	Palmer	Houghton, Mifflin & Co.
Poems and Tales	Poe	Houghton, Mifflin & Co.
Marmion	Scott	American Book Co.
Kenilworth	Scott	A. L. Burt
Woodstock	Scott	Houghton, Mifflin & Co.
Guy Mannering	Scott	Ginn & Co.
As You Like It	Shakespeare	Houghton, Mifflin & Co.
Othello	Shakespeare	American Book Co.
Tempest	Shakespeare	Houghton, Mifflin & Co.
Treasure Island	Stevenson	D. C. Heath & Co.
Princess	Tennyson	B. H. Sanborn & Co.
Essay on Burns	Carlyle	B. H. Sanborn & Co.
History of the Plague	Defoe	Longmans, Green & Co.
Paradise Lost	Milton	B. H. Sanborn & Co.
Golden Treasury	Palgrave	Ginn & Co.
Life of Nelson	Southey	Longmans, Green & Co.
Forum of Democracy	Watkins	Allyn & Bacon
Short Stories	Moulton	MacMillan & Co.
Short Stories	Hart & Perry	Houghton, Mifflin & Co.
Flight of a Tartar Tribe	DeQuincey	B. H. Sanborn & Co.

FRENCH

Adopted

French Dictionary		D. C. Heath & Co.
French Grammar	Fraser & Squair	D. C. Heath & Co.
French Reader	Super	D. C. Heath & Co.
French Composition	Grandgent	D. C. Heath & Co.

L'Arrabbiata
Zwischen Himmel und Erde
Das Edle Blut
Der Schwiegersohn
Der Stumme Ratsherr
Composition
Das Spielmannskind

Heyse
Ludwig
Wildenbruch
Baumbach
Riehl
Pope
Riehl

American Book Co
D. C. Heath & Co.
Henry Holt & Co.
Henry Holt & Co.
D. C. Heath & Co.
Henry Holt & Co.
D. C. Heath & Co.

MATHEMATICS

Adopted

Plane Geometry
Secondary Algebra
Essentials of Algebra
Elementary Algebra
Trigonometry
Elementary Algebra
Plane Geometry
Solid Geometry
Plane Trigonometry

Wentworth & Smith
Wells
Wells
Wentworth
Wentworth
Wells
Wentworth & Smith
Wentworth & Smith
Wentworth

Ginn & Co.
D. C. Heath & Co.
D. C. Heath & Co.
Ginn & Co.
Ginn & Co.
Ginn & Co.
Ginn & Co.
Ginn & Co.
Ginn & Co.

Supplementary

Plane Geometry
McCurdy Exercises
Essentials of Plane Geometry
Essentials of Solid Geometry
First Course in Algebra
Exercises in Algebra
Review of Algebra
Algebra Exercises
Plane Geometry (Reviews)
Exercises in Alg. & Geom.

Schultz & Sevenoak
McCurdy
Wells
Wells
Wells
McCurdy
Rivenburg
Robbins
MacGibbon
Hale

The Macmillan Co.
D. C. Heath & Co.
D. C. Heath & Co.
D. C. Heath & Co.
D. C. Heath & Co.
Sibley
Heath

GREEK

Adopted

First Greek Book
Xenophon's Anabasis
Greek Grammar
Greek-English Lexicon
Odyssey, Books I—VI
Greek Prose Composition

White
Goodwin & White
Goodwin
Liddell & Scott
Perrin & Seymour
Pearson

Ginn & Co.
Ginn & Co.
Ginn & Co.
American Book Co.
Ginn & Co.
American Book Co.

Supplementary

Xenophon's Hellenica. I—IV
Iliad, Books 1—VI
Herodotus, Vol. II

Manatt
Seymour
Dietsch

Ginn & Co.
Ginn & Co.
Teubner Edition, Leipsic,
Germany

LATIN**Adopted**

Latin Grammar	Allen & Greenough	Ginn & Co
Cicero	Allen & Greenough	Ginn & Co.
Virgil	Allen & Kittredge	Ginn & Co.
Latin Prose Composition	Daniell-Brown	B. H. Sanborn & Co.
New Method for Caesar	Potter	B. H. Sanborn & Co.

Supplementzry

Cicero Texts		American Book Co.
Virgil Texts		American Book Co.
Caesar Texts		American Book Co.
Sallust Texts		American Book Co.
First Book in Latin (Adopted)	Inglis & Prettyman	The Macmillan Co.
Caesar	Allen & Greenough	Ginn & Co.
Ovid	Allen & Greenough	Ginn & Co.
Nepos	Barss	MacMillan Co.
Latin Composition	Baker & Inglis	American Book Co.
A Year in Latin	W. A. Montgomery	Row, Peterson & Co

COMMERCIAL**Adopted**

Modern Illustrative Bookkeeping	Williams & Rogers	American Book Co.
Seventy Lessons in Spelling	Williams & Rogers	American Book Co.
Modern Business Penmanship	Mills	American Book Co.
Commercial Law	Gano	American Book Co.
Commercial Arithmetic	Moore	American Book Co.
Mental Arithmetic	Thurston	American Book Co.
Mental Arithmetic	Thompson	American Book Co.
Commercial Geography	Adams	D. Appleton Co.
Gregg Shorthand		Gregg Publishing Co.
Rational Typewriting		Gregg Publishing Co.
French Commercial Reader		Isaac Pitman Sons

Supplementary

Com. and Industrial Geography	Keller & Bishop	Ginn & Co.
Words		Gregg Pub. Co.
Zaner Method Manual		Zaner & Bloser Co.
Speed Studies		Gregg Pub. Co.
Graded Readings in Gregg Shorthand		Gregg Pub. Co.
Progressive Exercises		Gregg Pub. Co.
Practical Drills in Shorthand Penmanship		Gregg Pub. Co.
Advanced Practice in Gregg Shorthand		Gregg Pub. Co.

SPANISH

Worman's First Spanish Book		American Book Co.
Worman's Second Spanish Book		American Book Co.
Elementary Spanish Grammar	Espinosa & Allen	American Book Co.
Lecturas Faciles	Wilkins	Silver, Burdett & Company
Poco a Poco	Hall	World Book Co.
Spanish Tales for Beginners	Hills	Henry Holt Co.
Cuentos Modernos	Johnson	American Book Co.
Spanish Dictionary	Appleton	Appleton Pub. Co.

HISTORY

Adopted

History of the United States	Fiske	Houghton, Mifflin Co.
Brief History of the United States	McMaster	American Book Co.
Short History of Ancient Times	Myers	Ginn & Co.
History of the Ancient World	Botsford	The Macmillan Co.
Roman History	Morey	American Book Co.
Leading Facts of English History	Montgomery	Ginn & Co.
Ireland's Story	Johnston & Spencer	Houghton, Mifflin Co.

Supplementary

American History	Muzzey	Ginn & Co.
History of the United States	Adams & Trent	Allyn & Bacon
The Ancient World	West	Allyn & Bacon
A History of Greek Art	Tarbell	The Macmillan Co.
Greek Literature	Jebb	American Book Co.
A Short History of England	Andrews	Allyn & Bacon
History of the American Nation	McLaughlin	Appleton
Readings in History of the Nation	McLaughlin	Appleton
Short History of the U. S.	Bassett	Macmillan Co.
Gov't of N. E. States	Butler	Scribner
Manual of the Constitution	Andrew	American Book Co.
Civil Government	Martin	American Book Co.
New Civics	Ashley	Macmillan Co.
A Short History of England	Andrews	Allyn & Bacon
Ancient History	Webster	D. C. Heath & Co.
Greek Leaders	Hopkinson	Houghton, Mifflin Co.

CHEMISTRY, PHYSICS AND OTHER SCIENCES

Adopted

Descriptive Chemistry	Newell	D. C. Heath & Co.
Qualitative Analysis	Irish	American Book Co.
A Text Book of Physics	Hall & Bergen	Henry Holt & Co.
First Principles of Physics	Carhart & Chute	Allyn & Bacon
Field, Forest & Garden Botany	Gray	American Book Co.
Outlines of Botany	Leavitt	American Book Co.
Plant Studies	Coulter	D. Appleton & Co.
Plant Study	Meier	Ginn & Co.
Practical Physiology	Blaisdell	Ginn & Co.
Human Body	Martin	Henry Holt & Co.
Lessons in Astronomy	Young	Ginn & Co.
Text Book of Geology	Brigham	D. Appleton & Co.

Supplementary

Applied Physics	Hawkins	Longmans, Green & Co.
Advanced Physiology and Hygiene	Conn & Budington	Silver, Burdett & Co.
General Chemistry	Newell	D. C. Heath & Co.
Practical Physics	Black & Davis	Macmillan Co.

BOOKS FOR ELEMENTARY SCHOOLS

Adopted June, 1913

Algebra

Wentworth's First Steps Ginn & Co.

Arithmetics

Morey Elementary Part I Scribner's Sons
 Morey Elementary, Part II Scribner's Sons
 Morey Advanced Scribner's Sons
 Werner Mental American Book Co.

Dictionaries

Worcester Primary J. B. Lippincott & Co.
 Worcester Comprehensive J. B. Lippincott Co.

Geographies

Frye's First Steps in Geography Ginn & Co.
 Frye's Leading Facts of Geography, Part I Ginn & Co.
 Frye's Leading Facts of Geography, Part II Ginn & Co.
 Frye's Grammar School Geography Ginn & Co.
 Tarr & McMurry Geography, Book I The Macmillan Co.
 Tarr & McMurry Geography, Book II The Macmillan Co.
 Tarr & McMurry Geography, Book I, Part I The Macmillan Co.
 Tarr & McMurry Geography, Book I, Part II The Macmillan Co.
 Tarr & McMurry Geography, Book II, Part I The Macmillan Co.
 Tarr & McMurry Geography, Book II, Part II The Macmillan Co.

Geographical Readers

Carpenter's Africa American Book Co.
 Carpenter's Asia American Book Co.
 Carpenter's Australia American Book Co.
 Carpenter's Europe American Book Co.
 Carpenter's North America American Book Co.
 Carpenter's South America American Book Co.
 Winslow's The Earth and Its People D. C. Heath & Co.
 Winslow's The United States D. C. Heath & Co.
 Winslow's Our American Neighbors D. C. Heath & Co.
 Winslow's Europe D. C. Heath & Co.
 Winslow's Distant Countries D. C. Heath & Co.
 McDonald & Dalrymple's Little People Everywhere:
 Betty in Canada Little, Brown & Co.
 Manuel in Mexico Little, Brown & Co.
 Ume San in Japan Little, Brown & Co.
 Rafael in Italy Little, Brown & Co.
 Kathleen in Ireland Little, Brown & Co.
 Fritz in Germany Little, Brown & Co.
 Gerda in Sweden Little, Brown & Co.
 Boris in Russia Little, Brown & Co.
 Donald in Scotland Little, Brown & Co.
 Marta in Holland Little, Brown & Co.

Hassan in Egypt.....	Little, Brown & Co.
Josefa in Spain.....	Little, Brown & Co.

Histories

Gordy's American.....	Scribner's Sons
Montgomery's Leading Facts.....	Ginn & Co.
Scudder's American.....	American Book Co.
Dickson's American.....	The Macmillan Co.
Tappan's Our Country's Story.....	Houghton, Mifflin Co.
Tappan's England's Story.....	Houghton, Mifflin Co.
Davis's History of the U. S. for Youngest Readers.....	Ed. Pub. Co.
Wilson's Reader.....	The Macmillan Co.

Historical Readers

Guerber's Stories of the English.....	American Book Co.
Guerber's Stories of the Greeks.....	American Book Co.

Language and Grammar

Mother Tongue, Books I and II.....	Ginn & Co.
Metcalf & Rafter Series, Books I and II.....	American Book Co.
Aldine Language.....	Newson & Co.

Music Readers

Harmonic Series.....	American Book Co.
Johnson's Songs of the Nation (Sets of 50).....	Silver, Burdett & Co.

Spellers

Chancellor's Graded City.....	The Macmillan Co.
Reed's Word Lessons.....	C. E. Merrill Co.

Physiology

Gulick Series, Good Health.....	Ginn & Co.
Gulick Series, Emergencies.....	Ginn & Co.
Gulick Series, Town and City.....	Ginn & Co.
Gulick Series, Body at Work.....	Ginn & Co.
Gulick Series, Control of the Body and Mind.....	Ginn & Co.

Readers

The Aldine Series.....	Newson & Co.
Baker & Carpenter.....	The Macmillan Co.
Cyr.....	Ginn & Co.
Gordon.....	D. C. Heath & Co.
Jones.....	Ginn & Co.
Art Literature.....	Atkinson, Mentzer, Co.
Howe.....	Scribner's Sons
Wheeler.....	W. H. Wheeler & Co.
Williams Choice Literature.....	American Book Co.
The Hiawatha Primer.....	Houghton, Mifflin Co.
The Wide Awake Series.....	Little, Brown & Co.
Child Life Series.....	The Macmillan Co.
Heath.....	D. C. Heath & Co.

The Riverside Readers.....	Houghton, Mifflin Co.
Free & Treadwell's Reading Literature, I and II.....	Row, Peterson & Co.
The Haliburton Readers, I and II.....	D. C. Heath & Co.
Progressive Road to Reading, I and II.....	Silver, Burdett & Co.
(1) Blaisdell's Boy Blue and His Friends.....	Little, Brown & Co.
(2) Blaisdell's Polly and Doll.....	Little, Brown & Co.
(3) Blaisdell's Cherry Tree Children.....	Little, Brown & Co.
(4) Bingham's Merry Animal Tales.....	Little, Brown & Co.
(5) Bryce's Fables from Aesop.....	Newson & Co.
(6) Bryce's That's Why Stories.....	Newson & Co.
(7) Bryce's Short Stories for Little Folks.....	Newson & Co.
(8) Smith's Four Footed Friends.....	

The eight books numbered above are to be furnished for first, second and third grades in sets of not more than twenty-five.

General Literature

Sewell's Black Beauty.....	Ed. Pub. Co.
Defoe's Robinson Crusoe.....	American Book Co.
Masterpieces of American Literature.....	Houghton, Mifflin Co.
Hawthorne's Wonder Book.....	Houghton, Mifflin Co.
Scudder's Fables and Folk Stories.....	Houghton, Mifflin Co.
Hale's A Man Without a Country (Sets of 50).....	
Brook's Story of the Old Bay State (Set of 4), Grade 9.....	American Book Co.
Coe's Founders of Our Country (Set of 4), Grade 5.....	
Lucia's Story of American Discoverers for Little Americans (Set of 4), Grade 4.....	American Book Co.
Stevenson's Children's Classics (Set of 10):	
Book I for Grade 3.....	Houghton, Mifflin Co.
Book II for Grade 4.....	Houghton, Mifflin Co.
Book III for Grades 5 and 6.....	Houghton, Mifflin Co.

Desk Books for Teachers

Hart's Source Readers in American History.....	The Macmillan Co.
Page's American Poets.....	Houghton, Mifflin Co.
Hazard's Three Years With the Poets.....	Houghton, Mifflin Co.
Johnston's Ireland's Story.....	Houghton, Mifflin Co.
Ashley's Government and Citizen.....	The Macmillan Co.

Writing

Gilman System.....	Dutton & Co.
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TEXT BOOKS ADDED TO THE LIST

1914

Standard Reference Work.
Funk and Wagnalls Dictionaries.

1915

O'Shea & Kellogg Health Series, published by Macmillan Co.
Business English by Davis & Lingham, published by Ginn & Co
Office Training for Stenographers.—Gregg.
Standard Dictionary of Facts.

1916

Williams & Rogers, Beldings Correspondence—American Book Co.
 Young & Fields Readers—Ginn & Co.
 Golden Rule Series—Macmillan Co.
 Story Hour Readers—American Book Co.
 See & Say Phonics—Iroquois Publishing Co.
 Brigham & McFarlane, Essentials of Geography—American Book Co.

1917

Oral and Written English by Potter, Jeschke and Gillett, published by Ginn & Co.
 To take the place of Mother Tongue.
 Emerson and Bender. Grammar for optional use in ninth grades.
 Spellers—Mastery of words, by Sarah Louise Arnold, published by Iroquois Publishing Co.
 Spellers—Graded School Speller, by Spaulding & Miller, published by Ginn & Co.
 These spellers to replace, as spellers are needed, the Reed and the Chancellor spellers which are now in use.
 Readers: Everyday Classics by Baker and Thorndike, published by Macmillan Co.
 The Merrill Readers by Dyer and Brady, published by Charles E. Merrill Company.
 The Elson Readers, by Elson Keck, published by Scott, Foreman & Co.
 The Lippincott Readers, by Homer P. Lewis, published by J. B. Lippincott Company.
 The Twins Series, by Lucy Fitch Perkins, published by Houghton, Mifflin Company.
 Bunny Rabbits Diary by Blaisdell, published by Little, Brown & Co.
 Pretty Polly Flinders by Blaisdell, published by Little, Brown & Co.
 Old Mother West Wind by Burgess, published by Little, Brown & Co.
 For the Desk:—
 Arlo by Cobb, published by the Riverside Press.
 For the Children's Hour, by Bailey, published by Milton, Bradley Co.
 Keep Well Stories by Jones, published by J. P. Lippincott Co.
 Wonderland Stories by Lewis, published by J. P. Lippincott Co.
 The Travels of Birds by Chapman, published by D. Appleton & Co.

1918

Hart's School History of the United States.
 Powell's The Spirit of Democracy.
 Watkin's The Forum of Democracy.
 Brubacher & Snyder—High School English, Book I.

1919

Practical English, by Lewis and Harris.
 Prose Literature, by Ashman.
 The Deserted Village, Eclectic Edition.
 Quentin Durward, Pocket Classics Edition.
 Oregon Trail, by Parkman, Macmillan Co.
 Inland Voyage and Travels with a Donkey, Eclectic Edition.
 Essays and Essay Writing, The Atlantic Monthly.
 Henry Esmond, Pocket Classics Edition.
 Crawford, Pocket Classics Edition.
 Two Years Before the Mast, Pocket Classics Edition.
 Pride and Prejudice, Pocket Classics Edition.
 Mill on the Floss, Pocket Classics Edition.
 The Rivals and The School for Scandal, Pocket Classics Edition.
 The Virginians, Thackeray, Macmillan Co.
 The Call of the Wild, Macmillan Co.
 First Principles of Chemistry (Revised Edition), Allyn and Bacon.
 Laboratory Exercises to accompany First Principles of Chemistry, Allyn and Bacon.

**SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS OF THE CITY OF LOWELL FOR THE YEAR
ENDING JUNE 30, 1919, WITH THE NUMBER OF PUPILS BELONGING DECEMBER, 1919.**

SCHOOL	LOCATION																							
	Whole No. Enrolled			No. of Pupils Belonging Dec. 1919			Whole No. Pupils on Registers Since Sept. 1, 1918			Average No. Belonging to School			Average Daily Attendance			No. entered not received from any other public school	No. received from other public schools of lower grade	No. received from other public schools of same grade	No. sent to other public schools of higher grade	No. sent to other public schools of same grade	Per cent. of attendance	No. of class-rooms in regular use	No. of seats or sittings in these rooms	
	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total									
High.....	647	779	1426	650	886	1536	701	848	1549	607	771	1378	577	730	1307	106	440	26	13	12	94	8	50	1723
Grammar																								
Bartlett.....	237	252	489	235	259	494	247	270	517	213	238	451	198	217	415	12	28	21	52	35	92	1	12	593
Butler.....	306	262	568	300	283	583	319	327	646	261	257	559	260	256	516	4	46	27	66	10	92	3	15	739
Colburn.....	188	157	345	143	157	300	194	166	360	175	152	327	166	138	304	20	82	15	22	26	92	9	8	365
Edson.....	172	182	354	176	193	369	214	194	408	161	169	330	147	149	296	15	66	35	17	34	89	6	10	513
Green.....	253	240	493	243	190	433	354	258	612	201	172	373	181	153	334	170	93	32	15	34	89	5	12	602
Greenhalge.....	176	199	375	166	177	343	189	216	415	145	169	314	138	158	296	42	72	14	35	20	94	2	10	480
Lincoln.....	303	301	604	271	293	564	308	307	615	290	288	578	264	266	530	12	125	11	61	10	91	7	13	635
Moody.....	209	207	416	199	178	377	221	210	431	197	177	374	181	161	342	20	81	28	51	11	91	4	10	500
Morey.....	402	408	810	376	369	745	420	424	844	371	367	738	336	341	677	70	98	59	9	45	91	7	16	776
Pawtucket.....	247	249	496	204	234	438	247	249	496	219	219	438	206	203	409	37	77	24	37	16	93	3	11	554
Riverside.....	89	95	184	76	84	160	95	99	194	79	79	158	69	73	142	28	27	9	11	11	89	8	4	182
Varnum.....	351	325	676	299	303	602	355	376	731	298	311	609	282	290	572	81	121	28	44	28	93	9	15	776
Washington.....	219	215	434	214	188	402	224	219	443	213	213	426	197	184	381	12	48	9	36	17	89	4	10	458
Total.....	3152	3092	6244	2902	2908	5810	3387	3315	6702	2823	2811	5675	2625	2589	5214	523	964	312	456	297			146	7173

SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS—(Continued)

Primary	21	16	37	14	16	30	21	19	40	19	15	34	17	13	30	6	9	2	12	188.2	1	45
Agawam St.....	63	45	108	64	54	118	73	53	126	60	42	102	54	40	94	20	2	18	29	1692.1	1	158
Ames St.....	141	141	282	120	120	240	149	149	298	122	121	243	108	106	125	33	9	23	65	1388.	5	267
Bartlett.....	42	38	80	32	35	67	44	41	85	36	29	65	33	25	58	33	0	2	16	889.2	2	108
Billings St.....	150	98	248	121	91	212	152	101	253	103	75	178	86	62	148	248	0	5	28	1783.1	4	200
Cabot St.....	50	58	108	52	51	104	59	67	126	46	52	98	41	48	89	10	0	18	0	1190.8	3	168
Carter St.....	49	43	92	43	49	92	52	65	117	46	41	87	41	37	78	35	14	25	15	1289.6	2	102
Central St.....	80	96	176	66	79	145	80	98	178	62	77	139	59	69	129	41	0	16	29	3692.	4	192
Charles St.....	84	80	164	72	62	134	97	92	189	76	67	143	68	61	129	47	20	25	45	2690.2	4	197
Colburn.....	67	60	127	74	67	141	74	67	141	57	57	114	50	52	102	32	23	7	23	1189.4	3	133
Cross St.....	64	83	147	64	84	148	70	89	159	57	71	128	49	61	110	47	20	7	36	1085.9	3	154
Dover St.....	100	89	189	91	64	155	111	99	210	88	72	160	84	65	149	95	1	25	40	2293.1	4	220
Eliot.....	65	62	127	67	54	121	75	65	140	56	48	104	50	41	91	39	16	25	30	1787.5	3	142
Franklin.....	91	67	158	60	55	115	100	76	176	73	57	130	64	50	114	41	32	12	45	2087.6	3	144
Grand St.....	93	83	176	71	80	151	102	89	191	78	63	141	65	55	120	56	4	13	26	885.1	4	198
Greenhalge.....	24	23	47	13	13	26	24	23	47	9	13	22	8	9	17	46	0	1	5	977.2	1	30
Kirk St.....	62	66	128	68	68	136	72	71	143	57	60	117	52	55	107	21	17	15	29	791.4	3	160
Lakeview Ave.....	114	108	222	119	129	248	128	125	253	108	111	219	96	97	193	44	24	38	44	1488.1	5	280
Laura Lee.....	59	67	126	61	59	120	56	70	126	48	58	106	44	52	96	51	0	5	27	1190.5	3	158
London and West St.....	52	51	103	45	43	88	57	58	115	48	44	92	44	44	84	9	1	12	33	291.3	2	103
Central and Lyon St.....	66	96	162	63	83	146	80	107	187	63	83	146	57	74	131	63	27	23	29	889.7	4	178
New Moody.....	49	56	105	39	39	78	49	56	105	39	42	81	33	36	69	9	0	9	37	1685.1	2	96
Pawtucket.....	66	78	144	65	62	127	69	81	150	59	66	125	52	57	109	26	18	15	42	1087.2	3	168
Pine St.....	111	83	194	89	83	172	122	89	211	98	76	174	88	68	156	46	22	20	41	2789.6	4	200
Pond and High St.....	53	58	111	52	47	99	57	62	119	47	51	98	41	43	84	32	3	12	28	1285.7	2	105
Powell St.....	61	59	120	59	35	94	63	60	123	49	43	92	42	36	78	67	0	8	25	2584.7	2	109
Riverside.....	34	46	80	30	33	63	44	65	109	30	40	70	27	34	61	80	0	29	22	3087.1	2	103
Sycamore St.....	99	84	183	97	78	175	107	91	198	84	64	148	75	57	132	50	19	16	46	1889.1	4	211
Tenth St.....	64	68	132	49	57	106	66	69	135	59	60	119	53	54	107	39	0	4	0	1089.9	2	94
Avery and Lang St.....	49	41	90	40	39	79	49	53	102	48	35	83	43	32	75	0	2	10	29	890.3	2	105
Washington.....	105	100	205	96	91	187	113	106	219	91	84	175	85	80	165	64	13	15	47	2594.2	4	220
Weed St.....	96	88	184	68	70	138	117	113	230	86	68	154	76	51	127	109	0	14	21	1982.4	3	159
West Sixth St.....																						
Worthen St.....																						
Total.....	2324	2231	4555	2064	1991	4055	2532	2469	5001	2002	1885	3887	1785	1660	3445	1641	296	469	944	479	96	4907

SUMMARY OF THE ANNUAL RETURNS OF THE PUBLIC SCHOOLS—(Continued)

[illegible]

INDEX

Administration	4
Attendance Officers' Report	47
Certificates granted	71
Elections	15-16
Evening Schools	33
Evening School Summary	46
Evening School Teachers	66-69
General statistics	7-8
High school	18
In memoriam	17
Junior High Schools	41-45
List of Text Books	72-81
Manual training and cooking	30
Medical and dental supervision	19-22
Naturalization	34
Organization of School Committee, 1919	3
Organization of School Committee, 1920	5
Penmanship	31
Physical Education	34
Primary Supervisor	38
Pupils by grades	18
Receipts and Expenditures	9-11
Receipts and Expenditures (Discussion)	12
Resignations	15
Retirements	15
Roll of day teachers	49-66
Salary Schedule	70
Schoolhouses	14
School and home gardens	30-32
School census	13
School nursing	19-22
School physicians	19, 65
School savings banks	23
School hours	45
Sight and hearing tests	23
Special Classes	40
Summary of annual returns	82-84
Training schools	32
Vacations	45
Vocational school	23-29

CITY OF LOWELL

MASSACHUSETTS

EIGHTY-FOURTH ANNUAL REPORT

OF THE

CITY AUDITOR



FOR THE FINANCIAL YEAR

1919

Municipal Council

1919

MAYOR

PERRY D. THOMPSON

Commissioner Public Safety

ALDERMAN

JAMES E. DONNELLY

Commissioner Finance

ALDERMAN

DENNIS A. MURPHY

Commissioner Streets and Highways

ALDERMAN

GEORGE E. MARCHAND

Commissioner Property and Licenses

ALDERMAN

CHARLES J. MORSE

Commissioner Fire and Water Department

CITY OF LOWELL

Lowell is situated at the confluence of the Merrimack and Concord Rivers.

Was settled in 1653, called Chelmsford Grant. First Town Meeting in 1654.

Was originally a part of Chelmsford.

Owens its own water supply.

Incorporated as a Town in 1826.

Incorporated as a City in 1836.

Part of Tewksbury annexed in 1834, 1847, 1898, 1906.

Part of Dracut annexed in 1851, 1874, 1879.

Part of Chelmsford annexed in 1826, 1874.

Population, 112,759.

Has 219.18 miles of streets, 144.78 accepted, 74.40 unaccepted.

Has 125.43 miles of sewers, costing \$6,893,411.55.

Has an area of 14.1 square miles.

Assessed valuation \$107,269,813.00, and 28,276 assessed polls.

Tax rate \$26.00 per \$1,000.00 per cent. of valuation 100.

Bonded indebtedness, \$4,917,835.00, sinking funds \$1,701,802.83.

City Hall and Memorial Building costing \$450,000.

School Department—55 day High School teachers, 304 day elementary school teachers, 37 evening High School teachers, 20 evening elementary school teachers.

Fire Department—176 officers and men, 169 fire alarm boxes, 1463 hydrants, 21 fire apparatus, (not including water tower).

Water Department—Date of construction, 1870 to 1873; high service, 1881; driven wells, 1893 to 1916.

Source of supply—Two hundred ten (210) driven wells in the valley of River Meadow Brook, and four hundred seventy-nine (479) driven wells at Pawtucket Boulevard.

Mode of supply—Pumping to reservoir and pumping direct. Filtered through coke and sand.

Daily capacity 14,000,000 gallons; 157.46 miles mains; reservoir capacity 5 days' supply; consumes 5,442.967 daily.

Park Department—149.255 acres of parks and playgrounds valued at \$703,419.00.

Has five National Banks, two Trust Companies.

Has eight Savings Banks.

Has three Co-operative Banks.

Has 16½ miles waterways.

Develops about 30,000 h. p. daily by means of 6½ miles of canals which furnish power for manufacturing plants.

Has the largest Textile School.

Has more than 1000 manufacturing plants.

Auditor's Department

CITY OF LOWELL, MASSACHUSETTS

That the Auditor, with the exception of monthly bills approved by the Municipal Council, issue no warrant to pay any bill without THREE signatures of the Municipal Council.

All bills or claims for work performed must be presented to the DEPARTMENT ORDERING SAME; those for supplies furnished and contracts must be presented to the PURCHASING AGENT.

All bills or claims must be received by the City on or before the FIRST day of the month.

All department receipts must be sent to the Purchasing Agent on or before the THIRD day of the month.

All bills or claims shall be presented to the Commissioner of the Department contracting the same on or before the THIRD day of each month.

All bills after approval by the Commissioner, shall be listed and sent to the Auditor's Department not later than the EIGHTH day, for final approval by the Municipal Council.

ALL BILLS OR OTHER CLAIMS, BEFORE THEY ARE FINALLY CERTIFIED BY THE AUDITOR OR PAID SHALL BE APPROVED BY THE MUNICIPAL COUNCIL.

Bills will be paid on the FIFTEENTH day of each month.

OFFICES IN THE CITY HALL ARE OPEN FROM 9 A. M. UNTIL 4 P. M. EXCEPT SATURDAY.

Auditing Department

To the Municipal Council of the City of Lowell,
Gentlemen:—

Pursuant to the provisions of law made and provided, hereinafter is submitted a report of the City Auditor of the City of Lowell, concerning all business transactions of the city during the fiscal year of 1919.

Respectfully,

J. JOSEPH HENNESSY,

Auditor.

TAX LEVY 1919

	Valuations			Taxes		
	At Commitment	Supplementary	Totals	At Commitment	Supplementary	Totals
Personal	\$ 26,425,863.00	\$11,800.00	\$ 26,437,663.00	\$ 687,072.43	\$ 306.80	\$ 687,379.23
Real estate	80,843,950.00	34,150.00	80,878,100.00	2,101,942.70	887.90	2,102,830.60
	<u>\$107,269,813.00</u>	<u>\$45,950.00</u>	<u>\$107,315,763.00</u>	<u>\$2,789,015.13</u>	<u>\$1,194.70</u>	<u>\$2,790,209.83</u>
Number of polls.....	28,276	978	29,254	56,552.00	1,956.00	58,508.00
Total City Taxes for 1919.....				<u>\$2,845,567.13</u>	<u>\$3,150.70</u>	<u>\$2,848,717.83</u>
Non-resident bank shares.....			<u>\$442,676.00</u>	<u>11,509.58</u>	<u>0,000.00</u>	<u>11,509.58</u>
				<u>\$2,857,076.71</u>	<u>\$3,150.70</u>	<u>\$2,860,227.41</u>
			Grand Total Tax.....			

City Appropriations	\$2,431,900.00
(as certified)	
Income Tax Distribution (from Tax Com.)	75,912.40
Net Amount to Raise.....	<u>\$2,355,987.60</u>
State Tax	234,520.00
State Highway Tax.....	1,629.06
State Grade Crossings Tax.....	2,320.00
State Special Tax for Army & Navy Men..	14,071.20
State Resolve for Improvement of Hale's Brook	923.46
County Tax	<u>120,487.16</u>
Total up to Overlay.....	\$2,729,938.48
Overlay	115,628.65
Grand Total Tax Levy at time of Commit- ment	\$2,845,567.13
Supplementary Tax in December.....	<u>3,150.70</u>
Total City Tax at close of the year.....	\$2,848,717.83
Non-Resident Bank Shares Tax.....	<u>11,509.58</u>
Grand Total Tax.....	\$2,860,227.41
Street Sprinkling Tax.....	25,625.37
Moth Assessment	2,155.95
Eastern Mass. St. Railway Co. (Bay State System)	
Excise Tax, 4 Months.....	5,124.68
Wallace B. Donham, Receiver of Bay State St. R. Co.....	
Excise Tax, 8 Months.....	<u>10,249.36</u>
Total Amount for Collection for which Warrants were issued to Collector....	<u>\$2,903,382.77</u>

ABATEMENTS OF POLLS, PROPERTY, STREET SPRINKLING AND MOTH ASSESSMENTS
MADE IN THE YEAR 1919.

Year	REASSESSMENTS					ABATEMENTS						
	Personal Tax	Real Estate Tax	Totals	Before Payment	After Payment	Total	Before Payment	After Payment	Net Poll Tax	Personal Tax	Real Estate Tax	Net Totals
1916		\$ 37.63	\$15,074.94	\$15,074.94					\$12,108.00	\$2,929.31	\$ 37.63	\$15,074.94
1917		370.12	457.82	449.82	\$ 8.00	\$ 36.27	\$ 36.27		68.00	11.70	333.85	413.55
1918		1,059.10	4,287.37	4,220.20	67.17	74.97	70.21	\$4.76	2,058.00	1,093.58	993.65	4,145.23
1919		1,887.60	4,917.15	4,507.00	410.15	482.30	473.20	9.10		2,909.30	1,115.40	4,024.70

STREET SPRINKLING ABATEMENTS

Year	REASSESSMENTS				Net Abatements
	Total	Before Payment	After Payment	Total	
1916	\$ 3.46	\$ 3.46			\$3.46
1919	228.66	170.98	\$57.68	\$3.68	167.30

MOTH TAX ABATEMENTS

Year	Total	Before Payment	After Payment	Net Abatements
1915	\$1.25	\$1.25		\$1.25
1917	.30	.30		.30

Limit of Municipal debt for 1920 is \$2,469,161.08

BALANCE SHEET

DECEMBER 31, 1919

REVENUE		
Dr.		Cr.
\$ 96,733.33	 Cash	
1,069.64	 Taxes 1915.....	
8,689.64	 " 1916.....	
14,741.89	 " 1917.....	
194,229.05	 " 1918.....	
580,469.57	 " 1919.....	
13.85	 Moth 1917.....	
392.10	 " 1918.....	
643.52	 " 1919.....	
14.55	 Sprinkling 1915.....	
3,204.73	 " 1918.....	
7,220.69	 " 1919.....	
	 Overlay 1916.....	\$ 1,732.31
	 " 1917.....	14,637.79
	 " 1918.....	24,144.51
	 " 1919.....	111,594.85
3,518.48	 Tax Titles	
428.13	 Sidewalk Assessment	
1,498.11	 Sewer Assessment	
25,734.56	 Department Accts. Rec.....	
4,007.08	 Cemetery Accts. Rec.....	
	 Water Accts. Rec.....	13,692.02
	 Tax Revenue Loans.....	800,000.00
35,144.55	 Revenue Appropriations	
	 Cemetery Revenue	4,007.08
13,692.02	 Water Revenue	
	 Other Revenue	29,257.45
	 Premiums	5,827.29
	 Sidewalk Revenue	428.13
	 Sewer Revenue	1,498.11
5,124.68	 Excise Tax—1	
10,249.36	 Excise Tax—2.....	
\$1,006,819.54		\$1,006,819.54

NON-REVENUE

\$ 296,093.72	 Cash	
	 Appropriations	\$ 296,093.72
\$ 296,093.72		\$ 296,093.72

CITY OF LOWELL, DEC. 31, 1919

THE MUNICIPAL DEBT

Gross Debt

Total Ordinary City Debt.....	\$3,499,085.00
Total Water Works Debt.....	1,418,750.00
Total Tax Revenue Loans.....	800,000.00
Gross Debt, December 31, 1919.....	\$5,717,835.00

Net City Debt

Total Ordinary Debt, January 1, 1919.....	\$3,076,125.00
Sinking Fund&.....	733,442.29
Total	\$2,342,682.71
Payments	330,040.00
Total	\$2,012,642.71
Loans	753,000.00
Net Debt	\$2,765,642.71

Net Water Debt

Total Ordinary Water Debt, January 1, 1919.....	\$1,385,750.00
Sinking Fund	968,360.54
	\$ 417,389.46
Payments	47,000.00
Total	\$ 370,389.46
Loans	80,000.00
Total	\$ 450,389.46

Total Net City and Water Debt Dec. 31, 1919

City	\$2,765,642.71
Water	450,389.46
Total	\$3,216,032.17

INDEBTEDNESS

December 31, 1919

Sinking Funds Cash and Securities		Funded Debt	
City Hall Fund...	\$ 442,807.65	City Hall Loan payable 1920	\$ 450,000.00
High School Fund.	150,678.10	High School Loan payable 1921	200,000.00
New Schoolhouse Fd.	139,956.54	New Schoolhouse Loan payable 1926.....	200,000.00
Water Construction Fund	968,360.54	Water Construction Loan payable 1920	1,000,000.00
Net Bonded Debt...	3,216,032.17	General City 4 Loan	1,553,585.00
		4 1/4	87,400.00
		4 1/2	1,405,650.00
		4 3/4	45,000.00
		Nesmith Fund 1870	25,000.00
		Nesmith Fund 1870	1,000.00
		City Paying 6 per cent	
		Carney Medal Fund	200.00
\$4,917,835.00		\$4,917,835.00	

TRUST FUNDS

Cash and Securities \$	287,464.94	Carney Medal Fund.	\$ 200.00
Cash Used by City in 1870, and now paying 6 per cent...	26,200.00	Hapgood Wright Fd.	12,655.03
		John Davis Library Fund	100,727.43
		Jonathan Tyler Fund	10,000.00
		Thos. Nesmith Fund	25,000.00
		Thos. Nesmith Fund	1,000.00
		Cemetery Perpetual Care	148,374.98
		Unpaid Debt and Interest	14,707.50
		Joseph Henry Stackpole Fund	1,000.00
\$ 313,664.94		\$ 313,664.94	

PROPERTY

Dr.		Cr.
\$2,029,376.67	Water Works	
2,094,890.00	Schools	
2,751,247.42	General Departments	
	City of Lowell (Balancing Account)....	\$6,875,514.09
\$6,875,514.09		\$6,875,514.09

LIMIT OF INDEBTEDNESS

December 31, 1919

City, January 1, 1919.....	\$3,076,125.00
Water	1,385,750.00
Revenue Tax Loan.....	1,000,000.00

Gross Debt, January 1, 1919.....	\$5,461,875.00
----------------------------------	----------------

Total Gross Debt, January 1, 1919.....	\$5,461,875.00
Deduct by legislation:	
Water	\$1,385,750.00
Special Legislation	1,087,250.00
Revenue Tax Loan.....	1,000,000.00
	3,473,000.00

City Debt as Relates to Limit of Indebtedness.....	\$1,988,875.00
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Limit of Municipal Debt for 1919.....	\$2,360,124.45
City Debt as Relates to Limit.....	1,988,875.00

Distance from Debt Limit January 1, 1919.....	\$ 371,249.45
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Borrowing Limit December 31, 1919.....	\$ 88,289.45
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1919 Loans

Sewer Construction	25 years	\$ 75,000.00
Addition Schools	15 years	30,000.00
Isolation Hospital Equipment.....	20 years	20,000.00
Paving	10 years	40,000.00
Macadam	5 years	15,000.00
New Sidewalks	2 years	6,000.00
Addition Schools	20 years	160,000.00
Bridge Construction	20 years	20,000.00
Extension First Street.....	9 years	27,000.00
Isolation Hospital	13 years	26,000.00
Public Bath and Comfort Station.....	13 years	26,000.00
Sewer Construction	20 years	20,000.00
Macadam Pavement	5 years	25,000.00
Sidewalks	2 years	4,000.00
School Houses	15 years	45,000.00
Permanent Pavement	10 years	20,000.00
Sewer Construction	5 years	5,000.00
Sewer Construction	10 years	10,000.00
First Street Extension.....	7 years	14,000.00
Permanent Paving	10 years	10,000.00
Sewer Construction	5 years	5,000.00
Sewer Construction	10 years	10,000.00

\$ 613,000.00

Water Dept. Equipment.....	5 years	\$ 30,000.00
Water Dept. Mains.....	5 years	50,000.00

\$ 80,000.00

“Lowell Memorial Auditorium, Oct., 1919”—Appropriated	\$1,000,000.00
\$140,000.00 Bonds issued in June for 20 years.	

CLASSIFICATION OF
RECEIPTS AND PAYMENTS
BY SCHEDULES
Year of 1919

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Revenue for Outlays	Total
General Revenue			
1 Taxes:			
Current Year—			
1 Property	\$2,243,271.14		
2 Poll	32,462.00		
Previous Years—			
3 Property	520,926.46		
4 Poll	14,682.00		
From the State—			
5 Corporation	160,915.06		
6 Street Railway (exclu- sive of Boston Eleva- ted excise tax).....	5,421.60		
7 Bank	3,064.02		
Income Tax—			
General	86,438.40		
Schools	59,466.66		
Tax Title Redemption.	3,247.94		
Total from Taxes.....	\$3,129,895.28		\$3,129,895.28
2 Licenses and Permits:—			
Licenses—			
8 Liquor	85,777.00		
9 All Other	13,754.00		
Elevator	45.00		
Permits—			
10 Marriage	1,340.00		
11 All Other			
Total from Licenses and Permits	\$ 100,916.00		\$ 100,916.00
3 Fines and Forfeits:			
12 Court	\$ 9,203.65		
13 Department Penalties..			
14 Contract Violations....			
Total from Fines and Forfeits	\$ 9,203.65		\$ 9,203.65
Total forward			\$3,240,014.93

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$3,240,014.93
4 Grants and Gifts:			
Grants from Other Civil Divisions—			
15 From State, for Education			
a Support of Public Schools			
b Aid to High Schools			
c Aid to Industrial Schools			
d High School Tuition			
e Union Superintendency			
16 From State, for Armories			
17 From State, for Highway Purposes			
18 From State, for Other Purposes			
a Inspector of Animals			
b Protection Against Forest Fires			
c			
d			
19 From County (Dog Licenses), for Schools or Libraries	3,986.58		
Gifts From Individuals—			
20 For Expenses			
21 For Outlays			
Total from Grants and Gifts	\$ 3,986.58		\$ 3,986.58
5 All Other General Revenue			
22			
23			
Total from All Other General Revenue			
Total forward			\$3,244,001.51

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Revenue for Outlays	Total
Total forward			\$3,244,001.51
Commercial Revenue			
6 Special Assessments:			
24 Street Sprinkling	\$ 25,576.86		
25 Moth Extermination ..	2,420.22		
26 Sewers	10,898.57		
27 Sidewalks and Curbing	1,535.20		
28 Other Purposes			
Total from Special As- sessments	\$ 40,430.85		\$ 40,430.85
7 Privileges:			
29 Public Service			
30 Minor			
Excise Tax	\$ 27,377.08		
Total from Privileges...	\$ 27,377.08		\$ 27,377.08
Total forward			\$3,311,809.44

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Revenue for Outlays	Total
Total forward.....			\$3,311,809.44
8 Departmental:			
8a General Government			
Legislative—			
31 Aldermen and Council; Moderator			
Executive—			
32 Mayor; Commission; Selectmen			
Financial—			
33 Auditor, Accountant, and Auditing			
34 Treasurer	2,731.37		
35 Collector			
36 Assessors			
37 License Commissioners.	205.00		
38 Other Finance Offices and Accounts			
Other General Departments			
39 Law			
40 City or Town Clerk...	1,427.24		
General Gov'nment f'wd \$	4,363.51		
Total forward			

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
1 Departmental:			
1a General Government			
Legislative—			
1 Aldermen and Council;			
Moderator			
a Salaries and Wages.	\$ 10,000.00		
b Other Expenses	3.10		
Executive—			
2 Mayor; Commission;			
Selectmen			
a Salaries and Wages.	3,000.00		
b Other Expenses	2,650.62		
Financial—			
3 Auditor, Accountant,			
and Auditing	997.50		
a Salaries and Wages.	5,822.03		
b Other Expenses	811.26		
4 Treasurer			
a Salaries and Wages.	14,204.72		
b Other Expenses	4,573.83		
5 Collector			
a Salaries and Wages.			
b Other Expenses ...			
6 Assessors			
a Salaries and Wages.	17,788.25		
b Other Expenses.....	1,640.81		
7 License Commissioners.			
a Salaries and Wages	4,727.00		
b Other Expenses	313.02		
8 Other Finance Offices			
and Accounts			
a Sinking Fund Com-			
missioners			
b Miscellaneous			
Other General Departments			
9 Law			
a Salaries and Wages	4,184.00		
b Other Expenses	829.80		
10 City or Town Clerk...			
a Salaries and Wages.	9,017.10		
b Other Expenses	907.60		
General Gov'nment f'wd	\$ 81,470.64		

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$3,311,809.44
General Gov'nment f'wd	\$ 4,363.61		
41 City Messenger			
42 Public Works			
43 Engineering			
44 Supt. of Buildings....			
45 Election and Registra- tion			
46 Other General Depts..			
Municipal Buildings—			
47 City or Town Hall....			
Total from General Gov- ernment	\$ 4,363.61		\$ 4,363.61
8b Protection of Persons and Property:			
Police Department—			
48 Services of Officers....			
49 Sale of Materials.....			
50 Miscellaneous	72.73		
Rental Court by County.	2,950.00		
Protection of Persons and Property forward	\$ 3,022.73		
Total forward			\$3,316,173.05

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
General Gov'nment f'wd	\$ 81,470.64		
11 City Messenger			
a Salaries and Wages.	1,400.00		
b Other Expenses	85.13		
12 Public Works			
a Salaries and Wages.			
b Other Expenses.....			
13 Engineering			
a Salaries and Wages.	7,135.46		
b Other Expenses	317.82		
15 Election and Registration			
a Salaries and Wages.	15,624.56		
b Other Expenses	5,371.47		
16 Other General Depts.			
Purchasing Agent—			
a Salaries and Wages.	6,444.82		
b Other Expenses.....	1,373.03		
Registrar of Labor.....	549.50		
Municipal Buildings—			
17 City or Town Hall			
a Salaries and Wages.	15,793.02		
b Other Expenses	\$ 11,098.93		
Total for Gen'l Gov't...	\$ 146,664.38		\$ 146,664.38
1b Protection of Persons and Property			
Police Department—			
18 Salaries and Wages...	\$ 237,933.37		
19 Horses and Care of Same	595.16		
20 Equipment and Repairs	4,802.89		
21 Fuel and Light.....	2,214.22		
24 Other Expenses	2,384.95		
Insurance	5,788.67		
Waterways	412.50		
New Boilers.....		165.17	
Protection of Persons and Property forward	\$ 254,131.76		
Total forward			\$ 146,664.38

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$3,316,173.05
Protection of Persons and Property forward	\$ 3,022.73		
Fire Department—			
51 Sale of Materials.....			
52 Miscellaneous	390.00		
Militia—			
53 Armories			
54 Rifle Ranges			
Inspection—			
55 Inspection of Buildings	218.26		
56 Inspection of Wires...	433.52		
57 Sealing of Weights and Measures	1,292.36		
Forestry—			
58 Insect Pest Extermi- nation			
59 Planting and Trimming Trees	74.15		
60 Forest Fires			
Other Protection of Per- sons and Property—			
61 Bounties			
62			
63			
Total from Protection of Persons and Property \$	5,431.02		\$ 5,431.02
Total forward			\$3,321,604.07

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$ 146,664.38
Protection of Persons and Property forward ...	\$ 254,131.76	\$ 165.17	
Fire Department—			
25 Salaries and Wages...	226,357.02		
26 Horses and Care Same	10,820.12		
27 Equipment and Repairs	3,620.18		
28 Water	864.68		
29 Fuel and Light.....	11,215.83		
32 Other Expenses.....	2,326.65		
Auto Care and Sup- plies	4,793.21		
Insurance	630.51		
Fire Alarm Boxes....	16.84		
Laundry	911.19		
Office Supplies	255.65		
Militia— ..			
33 Armories			
34 Rifle Ranges.....			
a Salaries and Wages.	1,188.14		
b Other Expenses	186.84		
Inspection—			
35 Inspection of Buildings	90,507.56		
36 Inspection of Wires...	3,115.54		
37 Sealing of Weights and Measures	6,371.18		
Forestry—			
38 Insect Pest Extermi- nation	7,799.07		
39 Planting & Trim. Trees			
40 Forest Fires			
Other Protection of Persons and Property—			
41 Bounties			
42 Fish and Game Ward- ens	150.00		
43 Pound Keeper	5.00		
44			
Total for Protection of Persons and Property.	\$ 625,266.97	\$ 165.17	\$ 625,432.14
Total forward			\$ 772,096.52

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$3,321,604.07
8c Health and Sanitation—			
Health—			
64 Quarantine and Con- tagious Disease Hospi- tals			
65 Tuberculosis			
66 Miscellaneous	3,077.04		
67 Inspection			
Sanitation—			
68 Sewers and Sewage Disposal	69.13		
69 Sewer Construction ..			
70 Refuse and Garbage Disposal	4,161.77		
71 Street Cleaning			
Sewer Connections ...	6,198.28		
Other Health and Sanita- tion—			
72 Comfort Station	524.35		
73			
Total from Health and Sanitation	\$ 14,030.57		\$ 14,030.57
Total forward			\$3,335,634.64

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$ 772,096.52
1c Health and Sanitation—			
Health—			
45 General Administration	\$ 3,201.37		
46 Quarantine and Contagious Disease Hospitals	7,485.95	31,192.39	
47 Tuberculosis	9,969.71		
48 Vital Statistics.....	1,007.60		
49 Other Expenses	19,264.65		
50 Inspection			
a Inspection of School Children	800.00		
b Inspection of Animals	500.00		
c Inspection of Meat and Provisions	1,000.56		
d Inspection of Milk and Vinegar	3,599.16		
e Inspection of Smoke Sanitation—	321.33		
51 Sewer Maintenance and Operation	17,999.69		
52 Metropolitan Sewer Maintenance			
53 Sewer Construction ...		124,869.00	
54 Refuse and Garbage Disposal	112,245.75		
55 Street Cleaning			
Other Health and Sanitation			
56 Sanitaries and Public Convenience Stations.	8,099.90		
57 Care of Brooks and Streams			
58 Draining of Ponds			
59 Public Bath and Comfort Station		16,747.57	
Total for Health and Sanitation	\$ 185,495.67	\$ 172,808.96	\$ 358,304.63
Total forward			\$1,130,401.15

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$3,335,634.64
8d Highways:			
74 General	\$ 12.05		
75 Construction			
76 Sidewalks and Curbing	198.40		
77 Snow and Ice Removal			
78 Sprinkling			
a Water			
b Other			
79 Lighting			
80 Miscellaneous			
Paving		1,208.26	
Total from Highways...	\$ 210.45	\$ 1,208.26	\$ 1,418.71
8e Charities			
81 Almshouse or Town Farm	\$ 2,921.95		
a Sale of Produce and Stock			
b Board			
c Miscellaneous			
82 Reimbursements for Relief Given			
a From Individuals ...	146.01		
b From Other Cities and Towns	797.12		
c From the State.....	8,102.36		
83 Reimbursements for Mothers' Aid			
a From Individuals ..			
b From Other Cities and Towns			
c From the State.....			
84 Municipal General Hospitals			
85 Miscellaneous			
Total from Charities	\$ 11,967.44		\$ 11,967.44
Total forward			\$3,349,020.79

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$1,130,401.15
1d Highways:			
60 General Administration			
61 General Highway Exp.	\$ 237,313.30		
62 Construction		146,667.12	
63 Sidewalks and Curbing		9,710.28	
64 Snow and Ice Removal	7,022.95		
65 Sprinkling			
a Water	14,595.21		
b Other	15,385.59		
66 Lighting	115,992.86		
67 Other Expenses			
a Town Pump			
b Signs, Guide Boards, and Street Numbering			
c			
Total for Highways.....	\$ 390,309.91	\$ 156,377.40	\$ 546,687.31
1e Charities:			
68 General Administration	\$ 7,901.00		
69 Almshouse or Town Farm	112,727.40		
70 Outside Relief by City or Town	12,511.28		
71 Relief Given by Other Cities and Towns	1,728.25		
72 Mothers' Aid			
a Relief Given by City or Town	59,884.90		
b Relief Given by Other Cities and Towns....	303.33		
73 Hospitals			
a Municipal General ..			
b Private or Quasi- Public			
74 Other Expenses	22,816.74		
Total for Charities	\$ 217,872.90		\$ 217,872.90
Total forward			\$1,894,961.36

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$3,349,020.79
8f Soldiers' Benefits:			
86 State Aid	\$ 67,492.05		
87 Military Aid	878.00		
88 Soldiers' Burials	300.00		
89 Soldiers' Relief			
Total from Soldiers' Benefits	\$ 68,670.05		\$ 68,670.05
8g Schools:			
90 Tuition and Transpor- tation of State Wards			
91 Other Tuition	7,706.77		
92 Sale of Text Books and Supplies			
93 Miscellaneous	750.00		
Vocational School	17,911.00		
School House Rentals.	1,006.60		
School House (All Other)	26.00		
Smith-Hughes Fund...	2,454.56		
Construction Schools ..		1,825.00	
Total from Schools.....	\$ 29,854.93	\$ 1,825.00	\$ 31,679.93
8h Libraries:			
94 Fines, Rentals, and Sales	\$ 617.34		
95 Miscellaneous			
John Davis Trust Fund	4,233.01		
Total from Libraries ...	\$ 4,850.35		\$ 4,850.35
Total forward			\$3,454,221.12

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$1,894,961.36
1f Soldiers' Benefits:			
Soldiers' Exemption . \$	194.24		
75 General Administration	2,503.09		
76 State Aid	9,725.00		
77 Military Aid	1,608.00		
79 Soldiers' Relief	14,570.75		
German War	9,194.59		
Soldiers' Graves	153.25		
Total for Soldiers' Benefits	\$ 37,948.92		\$ 37,948 92
1g Schools:			
80 General Expenses			
a Administrative Salaries	\$ 3,850.00		
b Other Salaries	12,753.06		
81 Teachers' Salaries	465,799.17		
82 Text Books and Supplies	25,917.35		
83 Pensions	316.03		
84 Transportation	1,584.40		
85 Support of Truants..	1,281.58		
86 Janitors' Services	74,278.39		
87 Fuel and Light	37,657.30		
89 New Buildings		128,288.54	
90 Furniture and Furnishings	2,585.21		
91 Automobiles and Supplies	5,387.62		
92 Other Expenses	52,310.41		
Smith Hughes Fund.	2,454.56		
Textile School	10,000.00		
Total for Schools	\$ 696,175.08	\$ 128,288.54	\$ 824,463.62
1h Libraries:			
93 Salaries and Wages... \$	16,213.46		
94 Books, Periodicals, etc.	4,862.33		
95 Binding	854.50		
96 Fuel and Light	1,013.56		
97 Buildings			357.40
98 Other Expenses	2,806.50		
Total for Libraries	\$ 25,750.35	\$ 357.40	\$ 26,107.75
Total forward			\$2,783,481.65

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$2,783,481.65
li Recreation:			
99 General Administration			
a Salaries and Wages. \$	2,820.70		
b Other Expenses	71.00		
100 Parks and Gardens...			
a Salaries and Wages.	15,640.53		
b Improvements and Additions			
c Metropolitan Park Maintenance			
d Other Expenses	9,372.41		
101 Playgrounds and Gymnasias			
a Salaries and Wages.	1,728.75		
b Improvements and Additions			
c Other Expenses	318.11		
102 Bathhouses & Beaches			
a Salaries and Wages.			
b Improvements and Additions			
c Other Expenses			
103 Celebrations and Entertainments			
a Fourth of July.....	3,069.58		
b Labor Day			
c Band Concerts	318.00		
d All Other			
Total for Recreation....	\$ 33,339.08		\$ 33,339.08
Total forward			\$2,816,820.73

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$3,457,025.12
8j Pensions: 100			
Total from Pensions			
8k Unclassified:			
101 Receipts not Recorded under Previous Classi- fications			
a Auditorium	5,186.47		
b Insurance	2,687.09		
c Gov't. Food Sales...	5,532.47		
d			
Total from Unclassified.	\$ 13,406.03		\$ 13,406.03
Total forward			\$3,470,431.15

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$2,816,820.73
lj Pensions:			
104 Retirement made from:			
a Buildings Department	\$ 321.74		
b Police Department	7,563.00		
c Fire Department.....	6,338.64		
d Street Department..	1,658.75		
e School Department ..	316.03		
f Water Works Dept..	365.00		
Total for Pensions.....	\$ 16,563.16		\$ 16,563.16
lk Unclassified:			
105 Damages to Persons and Personal Property ..	\$ 1,036.99		
106 Memorial Day	1,649.83		
107 City and Town Clocks	50.00		
108 Searching Parties			
109 Ice for Drinking Fountains	212.86		
110 Payments not Recorded under Previous Classifications			
a Printing City or Town Reports	1,601.50		
b Various Services and 1917-1918 Bills	1,443.84		
c Workmen's Compensation	4,734.37		
d General Expenses ..	6,882.74		
e Memorial Auditorium			120,340.08
f Municipal Purposes			252.94
Total for Unclassified ..	\$ 17,612.13	\$ 120,593.02	\$ 138,205.15
Total forward			\$2,971,589.04

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Offsets to Outlays	Total
Total forward			\$3,470,431.15
9 Public Service Enterprises:			
102 Electric			
a Income from Sale of Light and Power.....			
b Miscellaneous			
103 Gas.....			
a Income from Sale of Gas			
b Sale of By-products (Coke, Tar, etc.).....			
c Miscellaneous			
104 Water			
a Income from Sale of Water	284,736.38		
b Miscellaneous	24,557.11	7,556.15	
105 All Other			
a Markets			
b Public Scales	105.85		
Total from Public Ser- vice Enterprises	\$ 309,399.34	\$ 7,556.15	\$ 316,955.49
10 Cemeteries:			
106 Sale of Lots & Graves \$	5,205.50		
107 Care of Lots & Graves	6,572.27		
108 Care of Endowed Lots (Interest on Funds).	3,641.15		
109 Miscellaneous			
Stackpole Fund	79.69		
Total from Cemeteries...	\$ 15,498.61		\$ 15,498.61
11 Administration of Trust Funds:			
110			
111			
112			
Total from Administra- tion Trust Funds.....			
Total forward.....			\$3,802,885.25

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Outlays	Total
Total forward			\$2,971,589.04
2 Public Service Enterprises:			
111 Electric—			
a Maintenance & Oper-			
ation			
b Construction			
112 Gas—			
a Maintenance & Oper-			
ation			
b Construction			
113 Water—			
a Maintenance & Oper-	231,916.11		
eration			
b Metropolitan Water			
Maintenance			
c Construction		27,800.29	
114 All Other—			
a Markets			
b Public Scales	1,000.00		
c Docks and Wharves			
d Ferries			
e Herring and Alewife			
Fisheries			
f Miscellaneous			
Total for Public Service			
Enterprises	\$ 232,916.11	\$ 27,800.29	\$ 260,716.40
3 Cemeteries:			
115 Maintenance	\$ 23,139.30		
116 Improvements and Ad-			
ditions			
Total for Cemeteries....	\$ 23,139.30		\$ 23,139.30
4 Administration of Trust			
 Funds:			
Total for Administration			
of Trust Funds			
Total forward			\$3,255,444.74

RECEIPTS

SOURCES OF RECEIPTS	Revenue for Expenses	Indebtedness	Total
Total forward			\$3,802,885.25
12 Interest:			
113 On Deposits	\$ 9,115.97		
114 On Deferred Taxes....	29,899.97		
115 On Deferred Special Assessments	40.30		
116 On Sinking Funds			
117 On Investment Funds..			
118 On Public Trust Funds			
a Charity			
b School			
c Library			
d Cemetery (for Gen- eral Care)			
e All Other	180.50		
119 Miscellaneous			
Excise Tax	1,432.65		
Total from Interest	\$ 40,669.39		\$ 40,669.39
13 Municipal Indebtedness:			
120 Loans in Anticipation of Revenue		\$2,400,000.00	
121 Other Temp'r'y Loans			
122 Loans for General Pur- poses		\$ 753,000.00	
123 Trust Funds Used....			
124 Loans for Public Ser- vice Enterprises		80,000.00	
125 Loans for Cemeteries .			
126 Bonds Refunded, Cur- rent Year			
127 Premiums	5,827.29		
128 Unpaid Warrants or Orders of Current Year			
Total from Municipal In- debtedness		\$3,238,827.29	\$3,238,827.29
Total forward			\$7,082,381.03

PAYMENTS

OBJECTS OF PAYMENTS	Expenses	Indebtedness	Total
Total forward			\$3,255,444.74
5 Interest:			
120 On Loans in Anticipation of Revenue			
121 On Other Temporary Loans	\$ 82,222.36		
122 On Loans for General Purposes	134,567.35		
123 On Trust Funds Used.	400.00		
124 On Loans for Public Service Enterprises ..	55,926.25		
125 On Loans for Cemeteries			
126 Metropolitan Interest Requirements			
a Sewer			
b Park			
c Water			
127 State Assessment for Interest on Account of Abolition of Grade Crossings			
128 All Other			
Total for Interest	\$ 273,115.96		\$ 273,115.96
6 Municipal Indebtedness:			
129 Loans in Anticipation of Revenue		\$2,600,000.00	
132 Bonds and Notes from Revenue			
a General	330,040.00		
b Public Service Enterprises	47,000.00		
c Cemeteries			
Total for Municipal Indebtedness	\$ 377,040.00	\$2,600,000.00	\$2,977,040.00
Total forward			\$6,505,600.70

RECEIPTS

SOURCES OF RECEIPTS		Non- Revenue	Total
Total forward			\$7,082,381.93
14 Sinking Funds:			
From Commissioners to meet Loans for—			
129 General Purposes			
139 Public Service Enter- prises			
Total from Sinking Funds			
		Temporary Accounts	
8 Agency, Trust, and Invest- ment Transactions:			
Agency—			
132 Taxes			
a State			
b Non-resident Bank ..			
c County			
133 Liquor Licenses Col- lected for the State			
134 Reimbursements for Abolition of Grade Crossings			
135 All Other			
Trust—			
136 Perpetual Care Funds		20,772.00	
137 Other Permanent Public Trust Funds		261.96	
138 Income for Investment			
139 Private Trust Funds and Accounts		7,395.98	
Total from Agency, Trust and Investment Transactions		\$ 28,429.94	\$ 28,429.94
Total forward			\$7,110,811.87

PAYMENTS

OBJECTS OF PAYMENTS	From Revenue	From Non-Revenue	Total
Total forward			\$6,505,600.70
7 Sinking Funds:			
To Commissioners for Debt Requirements—			
137 From Taxes, Earnings, etc.	\$ 30,500.00		
138 From Special Assess- ments			
139 From Sale of Real Es- tate, etc.			
Total for Sinking Funds.	\$ 30,500.00		\$ 30,500.00
		Temporary Accounts	
8 Agency, Trust, and Invest- ment Transactions:			
Agency—			
140 Taxes			
a State		\$ 234,520.00	
b Non-resident Bank ..		11,563.29	
c County		120,487.16	
141 Liquor Licenses Remit- ted to the State.....		21,444.25	
142 Abolition of Grade Crossings		2,320.00	
143 All Other		16,623.72	
Trust—			
144 Perpetual Care Funds.		11,750.00	
145 Other Permanent Public Trust Funds		7,395.98	
146 Income Invested			
147 Private Trust Funds and Accounts			
Total for Agency, Trust and Investment Transactions		\$ 426,104.40	\$ 426,104.40
Total forward			\$6,962,205.10

RECEIPTS

SOURCES OF RECEIPTS		Temporary Accounts and Cash Balances	Total
Total forward			\$7,110,811.87
16 Refunds:			
142 Taxes			
143 Licenses			
144 Special Assessments ..			
145 General Departments .			
146 Public Service Enter- prises			
147 Cemeteries			
148 Accrued Interest		1,746.82	
149 All Other		3,541.93	
Total Refunds		\$ 5,288.75	\$ 5,288.75
17 Transfers			
150 Departmental			
a from			
b from			
c from			
d from			
e from		48,174.05	
f from			
g from			
h from			
i from			
j from			
Total Transfers		\$ 48,174.05	\$ 48,174.05
18 Balances:			
151 General			
152 Sinking Fund			
153 Investment Fund			
154 Perpetual Care Fund..			
155 Other Public Trust Fund			
156 Private Trust Funds and Accounts			
Total Cash on Hand Be- ginning of Year.....			\$ 240,542.55
Grand Total Receipts and Cash on Hand.....			\$7,404,817.22

PAYMENTS

SOURCES OF RECEIPTS		Temporary Accounts and Cash Balances	Total
Total forward			\$6,962,205.10
9 Refunds:			
150 Taxes		\$ 1,611.02	
151 Licenses			
152 Special Assessments ..			
153 General Departments			
154 Public Service Enter- prises			
155 Cemeteries			
156 Accrued Interest			
157 All Other			
Total Refunds		\$ 1,611.02	\$ 1,611.02
10 Transfers:			
158 Departmental			
a to			
b to			
c to			
d to			
e to		48,174.05	
f to			
g to			
h to			
i to			
Total Transfers		\$ 48,174.05	\$ 48,174.05
11 Balances:			
159 General			
160 Sinking Fund			
161 Investment Fund			
162 Perpetual Care Fund..			
163 Other Public Trust Fund			
164 Private Trust Funds and Accounts			
Total Cash on Hand End of Year			\$ 392,827.05
Grand Total Payments and Cash on Hand....			\$7,404,817.22

FINANCIAL STATEMENT

OF THE

CITY OF LOWELL, MASS.

BALANCES

APPROPRIATIONS

CASH RECEIPTS

TRANSFERS

PAYMENTS

FROM JANUARY 1, 1919 TO DECEMBER 31, 1919

REVENUE—APPROPRIATIONS, RECEIPTS AND PAYMENTS

January 1, December 31, 1919.

1—Commissioner of Public Safety

No.	Expenditure	Unexpended	Balance to 1920	Balance from 1918	Appropriation from Revenue	Transfers	Cash Receipts	Total Appropriation
1- 1	Mayor	\$ 5,650.62	\$ 349.38		\$ 6,000.00			\$ 6,000.00
1- 7	Law	5,013.80			5,013.80			5,013.80
1-14	Insurance	5,788.67			6,000.00		\$249.15	6,249.15
2- 1	Police	255,493.59		\$ 460.48	257,300.00		60.20	257,360.20
2- 8	Fish & Game Wardens..	150.00			150.00			150.00
2- 9	Pound Keeper	5.00			5.00			5.00
2-12	Waterways	412.50			600.00			600.00
3- 1	Health Office	33,436.29			33,436.29			33,436.29
3- 2	Health, Yard	113,066.39			112,245.75	\$ 820.64		113,066.39
3- 3	Smoke Inspection	321.33	18.67		340.00			340.00
3- 4	School Inspection	800.00			800.00			800.00
3- 5	Animal Inspection	500.00	10.00		510.00			510.00
3- 6	Milk Inspection	3,599.16			3,599.16			3,599.16
3- 9	Isolation Hospital Maintenance	7,485.95	6,522.05		14,000.00		8.00	14,008.00
5- 1	Charity, Hospital	113,737.41			112,727.40	1,010.01		113,737.41
5- 2	Charity, O. D. R.....	45,185.37			38,503.47	228.10	6,453.80	45,185.37
5- 3	Charity, Mothers with Dependent Children ..	60,208.23	166.77		50,000.00	10,020.00	355.00	60,375.00
6- 1	Soldiers' Benefits	37,601.43	27,714.48		64,100.00		1,215.91	65,315.91
6- 6	Soldiers' Graves	153.25	146.75		300.00			300.00
6- 8	Soldiers' Exemption ..	194.24			194.24			194.24
8- 5	Band Concerts	318.00		257.00	500.00		75.00	575.00
14- 2	Revision Ordinances ...		495.50	\$495.50				495.50
		\$689,121.23	\$36,982.21	\$1,212.98	\$495.50	\$12,078.75	\$8,417.06	\$727,316.42

REVENUE—APPROPRIATIONS, RECEIPTS AND PAYMENTS—Continued

2—Commissioner of Finance

No.	Expenditures	Unexpended	Balance to 1920	Balance from 1918	Appropriation from Revenue	Transfers	Cash Receipts	Appropriation
1- 3 Auditor	\$ 6,633.29	\$ 166.71		\$ 6,800.00	\$ 6,800.00			\$ 6,800.00
1- 4 Treasurer	19,008.97			18,778.55	\$ 230.42			19,008.97
1- 5 Assessors	19,429.06	70.94		19,500.00				19,500.00
1- 8 City Clerk	10,932.30	467.70		11,400.00				11,400.00
1-11 Elections & Reg'n.....	20,996.03			20,996.03				20,996.03
1-12 Purchasing Agent	8,180.92			7,582.96	597.96			8,180.92
1-15 Registrar of Labor....	549.50	.50		550.00				550.00
14- 3 Auditing City Books....	997.50	2.50		1,000.00				1,000.00
1-16 Assessors (Tax Books)			1,800.00	1,800.00				1,800.00
	\$ 86,727.57	\$ 708.35	\$ 1,800.00	\$ 88,407.54	\$ 828.38			\$ 89,235.92

3—Commissioner Streets and Highways

1-10 Engineering	\$ 14,173.03	\$ 46.72		\$ 7,500.00	\$ 6,719.75			\$ 14,219.75
4- 1 Streets	251,187.55	5.00		246,000.00	5,192.55			251,192.55
4- 2 Street Sprinkling	29,980.80	19.20		30,000.00				30,000.00
4- 3 Street Lighting	115,992.86		\$ 6,007.14	122,000.00				122,000.00
3- 8 Sewer Maintenance ...	17,999.69	.31		18,000.00				18,000.00
	\$429,333.93	\$ 71.23	\$ 6,007.14	\$423,500.00	\$11,912.30			\$435,412.30

4—Commissioners Fire and Water

		Debit Balance to 1920					
2- 2 Fire	\$268,271.52		\$268,150.52	\$ 121.00			\$268,271.52
10- 1 Water Works	412,301.64	\$56,942.51		11,489.49			\$355,359.13
	\$680,573.16	\$56,942.51	\$268,150.52	\$11,610.49			\$623,630.65

5—Commissioner of Public Property and Licenses

1- 6 License Commission.....	\$	5,040.02			\$	5,040.02	\$	5,040.02
1- 9 City Messenger		1,485.13	\$	14.87		1,500.00		1,500.00
1-13 City Hall		26,891.95				26,891.95		26,891.95
2- 3 Rifle Range		1,374.98		.02		1,375.00		1,375.00
2- 4 Buildings		108,789.47		360.84		91,187.09	\$17,960.17	109,150.31
2- 5 Wires		3,115.54				3,115.54		3,115.54
2- 6 Sealer		6,371.18				6,371.18		6,371.18
2- 7 Moths		7,799.07		.93		7,800.00		7,800.00
2-10 Weigher		1,000.00		10.00		1,010.00		1,010.00
2- 14 New Boilers, C. Hall..		165.17				\$165.17		16,517.00
3- 7 Comfort Station		8,099.90		.10		8,100.00		8,100.00
		\$170,132.41	\$	386.76		\$165.17	\$17,960.17	\$170,519.17

6—Recreation

8- 1 Parks.....	\$	29,951.50				\$27,120.00	\$2,831.50	\$29,951.50
		\$	29,951.50			\$27,120.00	\$2,831.50	\$29,951.50

7—School Department

7- 7 Schools	\$644,594.71							
7- 2 Vocational School	39,457.09	\$	471.05			\$15.25	\$40.94	\$684,522.85
7- 3 Textile School	10,000.00					10,000.00		10,000.00
7- 4 Smith-Hughes Fund ..	2,454.56						2,454.56	2,454.56
	\$696,506.36	\$	471.05			\$694,466.66	\$2,495.50	\$696,977.41

REVENUE—APPROPRIATIONS, RECEIPTS AND PAYMENTS—Continued

8—Municipal Council

No.	Expenditure	Unexpended	Balance to 1929	Balance from 1918	Appropriation from Revenue	Transfers	Cash Receipts	Total Appropriation
1- 2	Commissioners	\$ 10,003.10			\$ 10,003.10			\$ 10,003.10
8- 3	Fourth of July				600.00			600.00
8- 4	Labor Day	\$ 1,200.00			1,200.00			1,200.00
8- 6	Memorial Day, G. A. R.	1,000.00			1,000.00			1,000.00
8- 7	Memorial Day, S. W. V.	499.83			500.00			500.00
8- 8	Memorial Day, S. of V.	150.00			150.00			150.00
8- 9	Vet. Firemen Ass'n....	100.00			100.00			100.00
13- 4	Liquor Licenses	21,444.25			21,444.25			21,444.25
14- 1	Claims	4,615.48		\$267.17	13,000.00		\$ 88.00	13,355.17
14- 4	Workmen's Compensation Act	4,734.37			6,000.00		164.50	6,164.50
14- 5	General Expenses	12,062.07			10,051.12	\$2,010.50	.45	12,062.07
		\$ 54,509.10	\$12,069.99	267.17	\$64,048.47	\$2,010.50	\$252.95	\$66,579.09

9—Library Trustees

9- 1	Library	\$ 25,750.35			\$ 20,900.00		\$ 4,850.35	\$ 25,750.35
		\$ 25,750.35			\$ 20,900.00		\$ 4,850.35	\$ 25,750.45

11—Cemeteries

11- 1	Cemeteries	\$ 23,189.30	\$ 6,114.48	\$4,733.17		\$50.00	\$24,520.61	\$29,303.78
		\$ 23,189.30	\$ 6,114.48	\$4,733.17		\$50.00	\$24,520.61	\$29,303.78

12--Fixed Charges

12- 1 Interest	\$220,729.71	\$ 6,663.36	\$223,853.07	\$3,540.00	\$277,393.07
12- 2 City Debt	330,040.00		330,040.00		\$330,040.00
12- 3 Sinking Funds	30,500.00		30,500.00		30,500.00
	<u>\$581,269.71</u>	<u>\$ 6,663.36</u>	<u>\$584,393.07</u>	<u>\$3,540.00</u>	<u>\$587,933.07</u>

13--Agency, Trust, Investments, Transactions

13- 1 State Tax	\$234,520.00		\$234,520.00		\$234,520.00
13- 2 National Bank Tax....	11,563.29		11,563.29		11,563.29
13- 3 County Tax	120,487.16		120,487.16		120,487.16
13- 5 Grade Crossings	2,320.00		2,320.00		2,320.00
13- 6 State Highway Tax...	1,629.06		1,629.06		1,629.06
13- 7 Army and Navy Men..					
(Special Tax)	14,071.20		14,071.20		14,071.20
13- 8 Improvement Hale's					
Brook	923.46		923.46		923.46
	<u>\$385,514.17</u>		<u>\$385,514.17</u>		<u>\$385,514.17</u>

NON-REVENUE—APPROPRIATIONS, RECEIPTS AND PAYMENTS

January, 1, December 31, 1919.

Commissioner of Public Safety

No.	3	4	Expended	Balance to 1920	Balance from 1918	Appropriated from Loans	Transfers	Cash Receipts	Total Appropriation
3- 1 Sewer Construction			\$126,450.02	\$ 2,790.05	\$4,240.07	\$125,000.00			\$129,240.07
3- 2 Isolation Hospital			28,652.39	20,390.29	1,461.66	46,000.00	\$1,581.02		49,042.68
3- 3 Isolation Hospital (2)			2,694.00	160.00	2,700.00		154.00		2,854.00
3- 4 Public Bath—Comfort Station.....			16,747.57	9,252.43		26,000.00			26,000.00
			\$174,543.98	\$32,592.77	\$8,401.73	\$197,000.00	\$1,735.02		\$207,136.75

Commissioner Streets and Highways

4- 1 Paving	\$ 71,500.62		\$80.36	\$ 70,000.00		\$ 1,420.26	\$ 71,500.62
4- 2 Macadamizing	37,428.06	\$ 2,095.95	124.01	40,000.00			40,124.01
4- 3 New Sidewalks	9,710.28	570.76	281.04	10,000.00			10,281.04
4- 4 Widening School Street and Mammoth Road	632.69	2,042.37	632.69				632.69
4- 5 Bridge Construction	17,957.63	2,042.37		20,000.00			20,000.00
4- 6 Con. and Extension First St.....	17,919.87	23,080.13		41,000.00			41,000.00
	\$155,149.15	\$28,389.21	\$1,118.10	\$181,000.00		\$1,420.26	\$183,538.36

School Department

7- 1 Acquiring Land, Construction New High School	\$ 2,341.35	\$25,572.05	\$27,913.40			\$ 27,913.40
7- 2 Acquiring Land and Construction Schools	125,947.19	120,040.48	13,162.67	\$235,000.00		245,987.67
	\$128,288.54	\$145,612.53	\$41,076.07	\$235,000.00		\$273,901.07

Commissioner Fire and Water

No.	Expend	Balance to 1920	Balance from 1918	Appropriated from Loans	Transfers	Cash Receipts	Total Appropriation
10- 1 Addition to Plant No. 2.....	\$ 3,785.51		\$3,785.51				\$3,785.51
10- 3 Acquiring Land, Protecting Water Supply	1.75	\$ 3,783.76			\$3,785.51		3,785.51
10- 2 Extension Water Works and Equip- ment	17,798.54	52,201.46		80,000.00			80,000.00
	<u>\$ 31,585.80</u>	<u>\$55,985.22</u>	<u>\$3,785.51</u>	<u>\$80,000.00</u>	<u>\$3,785.51</u>		<u>\$87,571.02</u>

Unclassified

14- 1 Municipal Purposes	\$ 252.94	\$ 4,625.02	\$4,877.96			\$ 4,877.96
14- 2 Memorial Auditorium	120,340.08	24,888.97		\$140,000.00		\$5,229.05
	<u>\$120,593.02</u>	<u>\$29,513.99</u>	<u>\$4,877.96</u>	<u>\$140,000.00</u>	<u>\$5,229.05</u>	<u>\$150,107.01</u>

RECAPITULATION

January 1, December 31, 1919.

Revenue Account

No.	Expenditure	Unexpended	Balance to 1920	Balance from 1918	Appropriation from Revenue	Transfers	Cash Receipts	Total Appropriation
1—Public Safety	\$ 689,121.23	\$36,982.21	\$ 1,212.98	\$ 495.50	\$706,325.11	\$12,078.75	\$ 8,417.06	\$727,316.42
2—Finance	86,727.57	708.35	1,800.00		88,407.54	828.38		89,235.92
3—Streets and Highways...	429,333.93	71.23	6,007.14		423,500.00	11,912.30		435,412.30
4—Fire and Water.....	680,573.16		**56,942.51		268,150.52	11,610.49	343,869.64	623,630.65
5—Public Property	170,132.41	386.76		165.17	152,390.78	17,960.17	3.05	170,519.17
6—Recreation	29,952.50				27,120.00		2,831.50	29,951.50
7—Schools	696,506.36	471.05			694,466.66	15.25	2,495.50	696,977.41
8—Municipal Council	54,509.10	12,069.99		267.17	64,048.47	2,010.50	252.95	66,579.09
9—Library Trustees	25,750.30				20,900.00		4,850.35	25,750.35
11—Cemeteries	23,189.30		6,114.48	4,733.17		50.00	24,520.61	29,303.78
12—Fixed Charges	281,269.71		6,663.36		584,393.07	3,540.00		587,933.07
13—Agency, Trust, Invest- ments, Transactions .	385,514.17				385,514.17			385,514.17
	\$3,852,578.79	\$50,689.50	\$21,797.96	\$5,661.01	\$3,415,216.32	\$60,005.84	\$387,240.66	\$3,868,123.83
			**\$56,942.51					

Non-Revenue Account

	Expended	Balance to 1920	Balance from 1918	Appropriated from Loans	Transfers	Cash Receipts	Total Appropriation
3—Public Safety	\$174,543.98	\$ 35,592.77	\$ 8,401.73	\$197,000.00	\$1,735.02	\$1,420.26	\$207,136.75
4—Streets and Highways...	155,149.15	28,389.21	1,118.10	181,000.00		1,825.00	183,538.36
7—Schools	128,288.54	145,612.53	41,076.07	235,000.00			273,901.07
10—Fire and Water	31,585.80	55,985.22	3,785.51	80,000.00	3,785.51		87,571.02
14—Unclassified	120,593.02	29,513.22	4,877.96	140,000.00		5,229.05	150,107.01
	\$610,160.49	\$296,093.02	\$59,259.37	\$833,000.00	\$5,520.53	\$8,474.31	\$902,254.21

**Debit Balance.

CLASSIFICATION OF
EXPENSES
REVENUE

DEPARTMENTAL

MAYOR'S DEPARTMENT

Appropriation	\$ 6,000.00	
	<u> </u>	\$ 6,000.00
Expended		
Salaries:		
To Perry D. Thompson, Commissioner of Public Safety	\$ 3,000.00	
J. Joseph Hennessy, Secretary....	1,211.43	
George F. Toye, Secretary.....	874.28	
Other Expenses:		
For Office Supplies	74.85	
Printing	38.50	
Telephone	82.33	
Transfers	40.00	
Transportation	187.91	
All Other	141.32	
	<u> </u>	5,650.62
Returned to Treasury		349.38
		<u> </u>
		\$ 6,000.00

COMMISSIONERS

Appropriation	\$ 10,003.10	
	<u> </u>	\$ 10,003.10
Expended		
Salaries:		
To Commissioners	\$ 10,000.00	
Other Expenses:		
For All Other Expenses.....	3.10	
	<u> </u>	\$ 10,003.10

AUDITING DEPARTMENT

Appropriation	\$ 6,800.00	
	<u> </u>	\$ 6,800.00
Expended		
Salaries:		
To Charles D. Paige, Auditor.....	\$ 1,458.31	
J. Joseph Hennessy, Auditor.....	1,041.69	
Clerks	3,322.03	
Other Expenses:		
For Office Supplies	131.23	
Printing, Binding, etc.....	257.25	
Transfers	246.42	
All Othes	176.36	
	<u> </u>	\$ 6,633.29
Returned to Treasury.....		166.71
		<u> </u>
		\$ 6,800.00

TREASURER AND COLLECTOR'S DEPARTMENT

Appropriation	\$ 19,008.97	
	<u> </u>	\$ 19,008.75

Expended

Salaries and Wages:

To Fred H. Rourke, Treasurer and Col- lector	2,700.00
Clerks	11,283.64
Writing and Distributing Tax Bills	451.50

Other Expenses

For Advertising	376.13
Office Supplies	2,294.25
Premium on Bonds	700.00
Printing, Binding, etc.....	732.02
Telephone	31.01
Transportation	42.23
All Other	398.19

<u> </u>	19,008.97
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ASSESSORS' DEPARTMENT

Appropriation	\$ 19,500.00	
	<u> </u>	\$ 19,500.00

Expended

Salaries and Wages:

To Albert J. Blazon, Asssesor.....	2,250.00
Daniel E. Hogan, Assessor.....	2,250.00
Jeremiah J. O'Sullivan, Assessor..	2,250.00
Permanent Clerks	4,618.00
Temporary Clerks	5,465.25
Assistant Assessors	955.00

Other Expenses:

For Advertising	45.95
Automobile, Supplies and Repairs	129.71
Office Supplies	255.15
Printing, Binding, etc.....	1,121.28
Transportation	14.82
Transfers	35.50
All Other Expenses	38.40

<u> </u>	19,429.06
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Returned to Treasury	70.94
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<u> </u>	\$ 19,500.00
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LICENSE COMMISSIONERS

Appropriation	\$	5,040.02	
		<u> </u>	\$ 5,040.02

Expended

Salaries and Wages:

To C. H. Hanson, }	.....	\$	800.00
Geo. E. Putnam, }	License Comm'ers..		750.00
J. H. McGrath, }	.....		750.00
Clerk			1,935.00
Temporary Clerk			492.00

Other Expenses:

For Office Supplies		62.65
Printing, Binding, etc.....		208.25
Telephone		7.85
Transfers		5.50
All Other		28.77

5,040.02

LAW DEPARTMENT

Appropriation	\$	5,013.80	
		<u> </u>	\$ 5,013.80

Expended

Salaries:

To William D. Regan	\$	3,000.00
Clerk		1,184.00

Other Expenses:

For Books		233.65
Office Supplies		110.77
Printing and Binding.....		164.28
Telephone		63.88
Transfers		18.00
All Other		239.22

5,013.80

CITY CLERK'S DEPARTMENT

Appropriation	\$ 11,400.00	
	<u> </u>	\$ 11,400.00

Expended

Salaries and Wages:

To Stephen Flynn, City Clerk.....	\$ 2,550.00
William P. McCarthy, Assistant	
City Clerk	2,265.48
Clerks	4,201.62

Other Expenses:

For Advertising	23.13
Birth Returns	1,165.70
Office Supplies	235.41
Printing and Binding	407.65
Telephone	13.40
Transfers	5.08
All Other	64.83

10,932.30

Returned to Treasury

467.70

	<u> </u>	\$ 11,400.00
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CITY MESSENGER'S DEPARTMENT

Appropriation	\$ 1,500.00	
	<u> </u>	\$ 1,500.00

Expended

Salary:

To Owen Manahan.....	\$ 1,400.00
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Other Expenses:

For Office Supplies.....	42.70
Printing and Binding.....	5.00
Telephone	16.43
Transfers	15.00
All Other	6.00

1,485.13

Returned to Treasury

14.87

	<u> </u>	\$ 1,500.00
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ENGINEERING DEPARTMENT

Appropriation	\$ 14,219.75	
		\$ 14,219.75
Expended		
Salaries and Wages:		
To Stephen Kearney, City Engineer....	\$ 2,700.00	
Clerk	1,182.98	
All Other Service.....	9,972.23	
Other Expenses:		
For Office Supplies	248.93	
Telephone	19.98	
Transfers	3.00	
All Other	45.96	
		\$ 14,173.03
Returned to Treasury,.....		46.72
		\$ 14,219.75

ELECTIONS AND REGISTRATION

Appropriation	\$ 20,996.03	
		\$ 20,996.03
Expended		
Salaries and Wages:		
To H. J. McOsker, }	\$ 800.00	
J. O. Allard, } Registrars of Voters	750.00	
F. Harrison, }	750.00	
Precinct Officers	7,280.00	
Registrars Assistants	2,991.82	
All Other	3,052.74	
Other Expenses:		
For Advertising	391.12	
Lighting	12.20	
Miscellaneous	341.88	
Office Supplies	217.21	
Printing and Binding.....	3,086.54	
Teaming	598.50	
Telephones	64.75	
Transfers	92.22	
All Other	567.05	
		\$ 20,996.03

PURCHASING DEPARTMENT

Appropriation	\$	8,180.92		
			\$	8,180.92
Expended				
Salaries:				
To Edward H. Foye.....	\$	2,400.00		
Inspector		1,455.47		
Clerks		2,589.35		
Other Expenses:				
For Automobile Supplies and Repairs..		8.30		
Advertising		6.00		
Office Supplies		1,250.75		
Printing, Binding, etc.....		23.85		
Telephone		21.20		
All Other		425.92		
			\$	8,180.92

CITY HALL DEPARTMENT

Appropriation	\$	26,891.95		
			\$	26,891.95
Expended				
Wages:				
To Janitors	\$	3,883.07		
Engineers and Firemen.....		5,982.15		
Elevator Service		1,262.23		
Matrons		4,498.55		
All Other		167.02		
Other Expenses:				
For Fuel and Light.....		8,985.36		
Furniture and Fittings.....		96.64		
Ice		212.86		
Janitors' Supplies		437.13		
Laundry		119.18		
Miscellaneous		451.04		
Transfers		15.00		
Water		349.24		
All Other Expenses.....		432.48		
			\$	26,891.95

INSURANCE

Appropriation	\$	6,249.15		
			\$	6,249.15
Expended				
To Various Persons and Firms.....	\$	5,788.67		
			\$	5,788.67
Balance to 1920.....				460.48
			\$	6,249.15

REGISTRAR OF LABOR

Appropriation	\$	550.00	
			\$ 550.00

Expended

Salary:

To Patrick J. Reynolds, Registrar of Labor	\$	500.00
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Other Expenses

For Office Supplies, Printing, etc.....		45.54
Transfer		3.96

			\$ 549.50
Returned to Treasury			.50
			\$ 550.00

ASSESSORS' TAX BOOKS

Appropriation	\$	1,800.00	
			\$ 1,800.00
Balance to 1920	\$	1,800.00	
			\$ 1,800.00

REVENUE

PROTECTION PERSONS
AND PROPERTY

POLICE DEPARTMENT

Appropriation	\$ 257,360.20	
		\$ 257,360.20

Expended

Salaries and Wages:

To Redmond Welch, Chief of Police....	\$ 2,400.00
All Other Salaries and Labor....	235,533.37

Other Expenses:

For Auto Care and Supplies.....	\$ 1,846.42
Coal and Wood.....	1,492.23
Gas and Electricity	721.99
Hay, Grain, etc.....	397.33
Harnesses, Stable Supplies, etc..	107.55
Ice	134.00
Janitors' Supplies	261.77
Laundry	74.28
Office Supplies and Printing.....	857.65
Motorecycle Care and Supplies....	1,504.06
Pensions	7,563.00
Prisoners Care and Transportation	27.31
Shoeing	138.98
Telephone	184.51
Transfers	25.00
Water	145.97
All Other Supplies.....	398.38
All Other Expenses.....	1,679.79
	\$ 255,493.59

Returned to Treasury.....	1,866.61
	\$ 257,360.20

FIRE DEPARTMENT

Appropriation	\$ 268,271.52	
		\$ 268,271.52

Expended

Salaries and Labor:

To Edward F. Saunders.....	\$ 2,500.00
All Other Salaries and Labor.....	223,857.02

Other Expenses:

Equipment and Repairs:

For Hose and Fittings.....	2,534.88
All Other Expenses.....	793.43

Horses and Care of Same:

For Hay, Grain, Straw, etc.....	8,794.74
Shoeing	1,457.50
Stable Supplies, Harnesses, etc....	567.88
All Other	51.00

Main, Buildings and Grounds:

For Coal and Wood.....	8,758.73
Furniture and Furnishings.....	78.75
Gas and Electricity	2,457.10
Laundry	911.19
All Other	200.96

Other Expenses:

For Automobile Repairs and Supplies..	4,793.21
Fire Alarm Boxes.....	16.84
Insurance	630.51
Office Supplies and Printing.....	255.65
Pensions	6,338.64
Telephone	285.30
Transfers	16.00
Various Other Supplies.....	1,524.26
Water	864.68
All Other Expenses.....	583.25

\$ 268,271.52

RIFLE RANGE DEPARTMENT

Appropriation	\$ 1,375.00		
		<u> </u>	\$ 1,375.00
Expended			
Salary:			
To Raymond Eastman, Keeper.....	\$ 1,140.14		
Temporary Clerk	48.00		
Other Expenses:			
For Equipment	36.85		
Telephone	55.83		
Transfers	19.49		
Various Supplies	74.67		
		<u> </u>	\$ 1,374.98
Returned to Treasury.....			.02
		<u> </u>	\$ 1,375.00

INSPECTION BUILDINGS

Appropriation	\$ 109,150.31		
		<u> </u>	\$ 109,150.31
Expended			
Salaries and Wages:			
To Francis A. Connor, Supt. Public			
Buildings	\$ 2,000.00		
All Other Salaries and Labor.....	68,353.40		
Other Expenses:			
For Automobile Supplies and Repairs..	3,568.06		
Electric Supplies	1,338.98		
Fuel, Light and Power.....	821.89		
Furniture and Furnishings.....	220.14		
Hardware	3,446.45		
Harnesses, Stable Supplies, etc....	131.70		
Hay, Grain, etc.....	985.33		
Lumber	5,808.85		
Mason Work and Supplies.....	1,858.17		
Office Supplies and Printing.....	244.47		
Paints, Oils, Glass, etc.....	2,347.47		
Pensions			
Pipe Fittings, Heating, Plumbing,			
etc.	14,623.49		
Roofing	841.76		
Shoeing	240.95		
Telephone	47.50		
Transfers	7.00		
Various Other Supplies.....	740.07		
Water	90.25		
All Other Expenses.....	1,073.54		
		<u> </u>	\$ 108,789.49
Returned to Treasury			360.84
		<u> </u>	\$ 109,150.31

INSPECTION WIRES

Appropriation	\$ 3,115.54	
	<u> </u>	\$ 3,115.54

Expended**Salaries:**

To William H. Mahan, Inspector Wires.	\$ 1,600.00
All Other Service.....	1,198.12

Other Expenses:

For Office Supplies, Printing, etc.....	161.73
Telephone	9.50
Transfers	15.00
Transportation, Car Fares.....	110.34
All Other Supplies.....	20.85
	<u> </u>
	\$ 3,115.54

SEALER WEIGHTS AND MEASURES

Appropriation	\$ 6,371.18	
	<u> </u>	\$ 6,371.18

Expended**Salaries:**

To Warren P. Riordan, City Sealer ...	\$ 1,500.00
All Other Service.....	4,011.27

Other Expenses:

For Advertising	25.54
Equipment	74.59
Office Supplies, Printing, etc.....	98.95
Telephone	75.75
Transfers	313.42
Transportation	35.40
Various Other Supplies.....	19.35
All Other Expenses	216.91
	<u> </u>
	\$ 6,371.18

FORESTRY—MOTH EXTERMINATION

Appropriation	\$	7,800.00		
			\$	7,800.00
Expended				
Salaries and Wages:				
To John G. Gordon, Superintendent....	\$	1,455.84		
All Other Service.....		4,290.25		
Other Expenses:				
For Advertising		63.47		
For Arsenate of Lead.....		860.00		
Equipment, Hardware, Repairs, etc.		91.13		
Office Supplies, Printing, etc.....		29.75		
Transfers		241.96		
Transportation		441.50		
All Other Expenses.....		325.17		
			\$	7,799.07
Returned to Treasury				.93
			\$	7,800.00

FISH AND GAME WARDENS

Appropriation	\$	150.00		
			\$	150.00
Expended				
Salaries:				
To Harry Gonzales	\$	100.00		
Elmer H. Houghton.....		50.00		
			\$	150.00

POUND KEEPER

Appropriation	\$	5.00		
			\$	5.00
Expended				
Salary				
To A. B. Humphrey.....	\$	5.00		
			\$	5.00

CITY WEIGHER

Appropriation	\$ 1,010.00	
		\$ 1,010.00

Expended

Salary:

To George F. Noonan, City Weigher...	\$ 1,000.00	
		\$ 1,000.00

Returned to Treasury		10.00
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		\$ 1,010.00
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WATERWAYS

Appropriation	\$ 600.00	
		\$ 600.00

Expended

Other Expenses

For Life Saving Apparatus.....	\$ 84.09	
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Transfers	156.49	
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Various Other Supplies.....	171.92	
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		\$ 412.50
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Returned to Treasury.....		187.50
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		\$ 600.00
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NEW BOILERS—CITY HALL

Appropriation	\$ 165.17	
		\$ 165.17

Expended

Wages:

To Various Persons for Service.....	\$ 144.41	
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Other Expenses:

For Transfers.....	20.76	
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		\$ 165.17
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REVENUE

HEALTH AND SANITATION

HEALTH OFFICE

Appropriation	\$ 33,436.29	
		\$ 33,436.29

Expended

Salaries and Wages:

To P. Brunelle, }	
T. F. Carroll, } Board of Health.....	\$ 1,500.00
J. E. Drury }	
All Other Services.....	16,446.56

Other Expenses:

For Bacteriologist	868.96
Board and Treatment.....	7,893.70
Dry Goods, Clothing, etc.....	195.58
Drugs, Medicines, etc.....	820.73
Groceries and Provisions.....	1,744.77
Medical Attendance	585.98
Office Supplies, Printing.....	810.49
Telephone	85.20
Transfers	1,271.56
Transportation, Traveling Expenses	400.26
Various Other Supplies.....	126.00
All Other Expenses.....	686.50
	33,436.29

REFUSE AND GARBAGE

Appropriation	\$ 113,066.39	
		\$ 113,066.39

Expended

Wages:

To Labor	\$ 87,146.35
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Other Expenses:

For Fuel	570.07
Hardware, Blacksmiths' Supplies..	921.11
Harnesses, Stable Supplies, etc...	1,066.81
Hay, Grain, etc.....	18,305.68
Hire Horses, Teaming, etc.....	2,946.00
Laundry	604.00
Lighting	218.64
Water	99.57
All Other Expenses.....	1,188.16
	\$ 113,066.39

SMOKE INSPECTION

Appropriation	\$	340.00		
			\$	340.00
Expended				
Salary:				
To Charles J. Riley.....	\$	300.00		
Other Expenses:				
For Transportation		17.00		
All Other Expenses.....		4.33		
			\$	321.33
Returned to Treasury				18.67
			\$	340.00

INSPECTION SCHOOL CHILDREN

Appropriation	\$	800.00		
			\$	800.00
Expended				
Salaries:				
To Various Physicians.....	\$	800.00		
			\$	800.00
			\$	800.00

INSPECTION ANIMALS

Appropriation	\$	510.00		
			\$	510.00
Expended				
Salary:				
To Walter A. Sherman, Inspector of				
Animals	\$	500.00		
			\$	500.00
Returned to Treasury				10.00
			\$	510.00

INSPECTION MILK AND VINEGAR

Appropriation	\$	3,599.16		
			\$	3,599.16
Expended				
To Melvin F. Master, Inspector of Milk				
and Vinegar	\$	1,935.00		
Collector		1,206.63		
Other Expenses:				
For Chemical Equipment and Supplies.		180.57		
Office Supplies and Printing.....		122.90		
Telephone		62.40		
Traveling Expenses.....		91.32		
All Other		.34		
			\$	3,599.16

COMFORT STATION

Appropriation	\$ 8,100.00	
		\$ 8,100.00

Expended

Wages:		
To Labor	\$ 6,475.93	
Other Expenses:		
For Fuel and Light.....	454.51	
Janitors' Supplies	409.70	
Transfers	47.29	
Various Other Supplies.....	272.09	
Water	220.88	
All Other Expenses.....	219.50	
		\$ 8,099.90
Returned to Treasury		.10
		\$ 8,100.00

SEWER MAINTENANCE

Appropriation	\$ 1,800.00	
		\$ 1,800.00

Expended

Wages:		
To Labor	\$ 16,439.10	
Other Expenses:		
For Equipment, Hardware, etc.....	556.08	
Fuel and Lighting.....	48.44	
Hay, Grain, etc.....	475.50	
Office Supplies, Printing, etc.....	45.00	
Various Other Supplies.....	57.82	
All Other Expenses.....	377.75	
		\$ 17,999.69
Returned to Treasury		.31
		\$ 18,000.00

ISOLATION HOSPITAL

Appropriation	\$ 14,008.00	
		\$ 14,008.00

Expended

Salaries and Wages:		
To Forster Smith, Superintendent.....	\$ 600.00	
Labor	2,358.70	
Other Expenses:		
For Fuel, Light and Power.....	2,472.17	
Miscellaneous	304.51	
Transfers	1,581.02	
All Other	169.55	
		\$ 7,485.95
Returned to Treasury.....		6,522.00
		\$ 14,008.00

REVENUE

HIGHWAYS AND BRIDGES.

HIGHWAYS

Appropriation	\$ 251,192.55	
	<u> </u>	\$ 251,192.55

Expended

Salaries and Wages:

To John B. Blessington, Supt. of Streets	\$ 2,300.00
Clerical Service and Labor.....	192,409.34

Other Expenses:

For Autos Care and Supplies.....	9,417.90
Concrete, Tar, Oils and Asphalt..	3,204.45
Equipment, Hardware, etc.....	8,055.38
Fuel	1,274.53
Harnesses, Stable Supplies, etc...	464.70
Hay, Grain, etc.....	24,168.56
Horse Medicine, Veterinary Service	447.00
Lime, Brick and Cement.....	410.22
Lighting	347.41
Lumber	1,289.82
Office Supplies and Printing.....	382.30
Pensions	1,658.75
Telephone	116.95
Transfers	1,548.07
Teaming, Use of Horse and Autos.	1,338.50
Transportation and Traveling Ex-	
penses	177.81
Various Other Supplies.....	719.28
Water	445.58
All Other Expenses.....	1,011.00

Returned to Treasury	5.00
	<u> </u>
	\$ 251,187.55
	<u> </u>
	\$ 251,192.55

STREET LIGHTING

Appropriation	\$ 122,000.00
	<u> </u>
	\$ 122,000.00

Expended

Other Expenses:

For Electrical Lighting.....	\$ 81,269.10
Gas Lighting.....	34,723.76

	<u> </u>	\$ 115,992.86
Balance to 1920.....		6,007.14
	<u> </u>	\$ 122,000.00

STREET SPRINKLING

Appropriation	\$ 30,000.00	
		\$ 30,000.00
Expended		
Wages:		
To Labor	\$ 7,826.19	
Other Expenses:		
For Hardware, Equipment, etc.....	448.56	
Oil and Applying Oil.....	7,559.40	
Transfers	1,233.28	
Use of Track, Power and Street		
Sprinkler	10,029.92	
Water	2,800.00	
All Other Expenses.....	83.45	
		\$ 29,980.80
Returned to Treasury.....		19.20
		\$ 30,000.00

REVENUE

CHARITIES

CHARITY—CHELMSFORD STREET HOSPITAL

Appropriation	\$ 113,737.41	
		\$ 113,737.41

Expended**Salaries and Wages:**

To Michael A. Tighe, M. D., City Physi-	
cian	\$ 1,200.00
All Other Service.....	22,786.77

Other Expenses:

For Drugs, Chemicals, etc.....	1,530.43
Dry Goods, Clothing, etc.....	5,854.19
Equipment, Hardware, etc.....	2,163.68
Furniture	213.50
Groceries, Provisions, etc.....	54,688.11
Hay, Grain, Straw, etc.....	5,501.61
Ice	1,073.70
Office Supplies, Printing, etc.....	64.15
Power, Fuel and Light.....	14,855.45
Telephone	50.63
Transfers	853.89
Transportation	128.75
Various Other Supplies.....	362.97
Water	1,445.22
All Other Expenses.....	964.36
	\$ 113,737.41

CHARITY—OUTSIDE RELIEF

Appropriation	\$ 45,185.37	
		\$ 45,185.37

Expended

Salaries and Wages:

To Martin F. Conley, Superintendent..	\$ 1,800.00
Various Physicians.....	1,862.43
All Other Service.....	6,651.07

Other Expenses:

For Ambulance Service.....	3,902.21
For Auto Repairs and Supplies...	766.94
Burials	111.00
Cash Allowance.....	7,258.96
Coal and Wood.....	3,252.44
Groceries and Provisions.....	6,351.02
Medicines and Medical Attendance	2,227.98
Office Supplies and Printing.....	137.98
Outside Relief, City:	
State Institutions.....	3,599.97
Other Institutions.....	4,751.24
Relief, Other Cities, Towns:	
Cities	1,376.69
Towns	351.56
Transfers	431.40
Transportation	128.40
Various Other Supplies.....	93.74
All Other Expenses.....	130.34

	\$ 45,185.37
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MOTHERS—DEPENDENT CHILDREN

Appropriation	\$ 60,375.00	
		\$ 60,375.00

Expended

Other Expenses:

For Board and Medical Care.....	256.50
Burials	240.31
Mothers with Dependent Children	59,361.92
Outside Aid.....	303.33
Transfers	5.00
All Other Expenses.....	41.17

	\$ 60,208.23
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Returned to Treasury.....	166.77
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	\$ 60,375.00
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REVENUE

SOLDIERS' BENEFITS

SOLDIERS' BENEFITS

Appropriation	\$ 65,315.91	
		\$ 65,315.91
Salaries:	Expended	
To George E. Worthen, Supt. State Aid	\$ 1,342.50	
William A. Arnold, Supt. State		
Aid	31.50	
All Other Service.....	1,053.49	
All Other Expenses:		
For Office Supplies, Printing.....	30.90	
Telephone	2.35	
Transfers	5.50	
All Other Expenses.....	36.85	
State Aid:		
To Various Persons.....	9,715.00	
Other Expenses:		
For Transfers	10.00	
Military Aid:		
To Various Persons.....	1,608.00	
Soldiers' Relief:		
For Aid (Various Persons).....	10,413.00	
Burials	320.00	
Fuel	223.63	
Groceries and Provisions.....	2,680.34	
Medicine and Medical Attendance	512.70	
Transfers	23.85	
Transportation	67.23	
All Other Expenses.....	330.00	
German War:		
Aid to Various Persons.....	9,194.59	
		\$ 37,601.43
Returned to Treasury.....	27,714.48	
		\$ 65,315.91

SOLDIERS' GRAVES

Appropriation	\$ 300.00	
		\$ 300.00
Other Expenses:	Expended	
For Transfers	\$ 50.00	
All Other Expenses.....	103.25	
		\$ 153.25
Returned to Treasury.....		146.75
		\$ 300.00

SOLDIERS' EXEMPTION

Appropriation	\$ 194.24	
		\$ 194.24
	Expended	
To the Commonwealth of Massachusetts..	\$ 194.24	
		\$ 194.24

REVENUE

EDUCATION

SCHOOL DEPARTMENT

Appropriation	\$ 684,522.85	
		\$ 684,522.85

Expended

Salaries and Wages:

To Hugh J. Molloy, Supt. of Schools..	\$ 3,850.00
All Other Salaries and Labor....	520,980.13

Other Expenses:

For Advertising	44.83
Automobile Supplies and Repairs.	5,387.62
Board of Truants, Training School	1,281.58
Fuel and Light.....	35,794.42
Furniture and Furnishings.....	3,009.08
Hardware	2,544.78
Laundry	770.50
Office Supplies.....	239.26
Paper, Pens, Pencils.....	7,863.71
Pensions	316.03
Provisions	649.95
Printing	1,867.50
Rental Theatre.....	286.56
Text and Reference Books.....	8,059.10
Transportation	1,853.40
Training School, State Agreement	32,564.70
Telephone	704.95
Transfers	5,820.65
Various Other Supplies.....	4,836.39
Water	1,773.38
All Other Expenses.....	4,096.19

Vocational School:

Salaries and Wages:

To Various Persons.....	32,166.52
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Other Expenses:

For Electrical Supplies, Machinery,	
Tools, Hardware, etc.....	2,019.89
Groceries and Provisions.....	437.50
Laundry	371.45
Lumber	432.41
Power, Fuel and Light.....	1,862.88
Printing, Office Supplies, etc.....	736.79
Supplies for Girls' Course.....	428.60
Text and Reference Books.....	104.79
Telephone	103.90
Transfers	39.00
Various Other Supplies.....	398.92
All Other Expenses.....	430.62

		\$ 684,051.80
Returned to Treasury.....		471.05

\$ 684,522.85

REVENUE

RECREATION

PARK DEPARTMENT

Appropriation	\$ 29,951.50	
		\$ 29,951.50
Salaries and Wages:		
To Various Persons.....	18,425.61	
Labor for Playground.....	1,725.12	
Labor for Trees.....	12.44	
Other Expenses:		
For Autos, Auto Supplies, Repairs....	2,658.03	
Hardware, Equipment, etc.....	2,164.67	
Hay, Grain, etc.....	585.45	
Moving Pictures.....	541.70	
Office Supplies, Printing.....	73.52	
Plants, Trees, etc.....	764.80	
Telephone	6.61	
Transfers	143.67	
Various Other Supplies.....	618.79	
Work on Municipal Bath House..	1,254.00	
All Other Expenses.....	977.09	
		\$ 29,951.50

FOURTH OF JULY

Appropriation	\$ 600.00	
		\$ 600.00
Returned to Treasury.....	\$ 600.00	
		\$ 600.00

LABOR DAY

Appropriation	\$ 1,200.00	
		\$ 1,200.00
Returned to Treasury.....	1,200.00	
		\$ 1,200.00

BAND CONCERTS

Appropriation	\$ 575.00	
		\$ 575.00

Expended

Other Expenses:		
For Music	\$ 318.00	
		\$ 318.00
Balance to 1920.....		257.00
		\$ 575.00

MEMORIAL DAY—G. A. R.

Appropriation	\$	1,000.00	
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Expended

Other Expenses:

For Collations	\$	260.32	
Flags and Standards.....		262.50	
Flowers and Decorations.....		76.00	
Music		267.00	
Transportation		28.00	
All Other Expenses.....		106.18	
			\$ 1,000.00

MEMORIAL DAY—S. W. V.

Appropriation	\$	500.00	
			\$ 500.00

Expended

Other Expenses:

For Collations	\$	175.00	
Flags and Standards.....		54.00	
Flowers and Decorations.....		1.50	
Music		160.00	
Transportation		43.00	
All Other Expenses.....		66.33	
			\$ 499.83
Returned to Treasury.....			.17
			\$ 500.00

MEMORIAL DAY—S. OF V.

Appropriation	\$	150.00	
			\$ 150.00

Expended

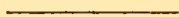
Other Expenses:

For Various Expenses.....	\$	150.00	
			\$ 150.00

VETERAN FIREMEN'S ASSOCIATION

Appropriation	\$	100.00	
			\$ 100.00
Returned to Treasury.....			\$ 100.00

REVENUE



LIBRARIES

LIBRARY

Appropriation	\$ 25,750.35	
		\$ 25,750.35

Expended

Salaries and Wages:

To Frederick A. Chase, City Librarian.	\$ 2,350.00
All Other Service.....	13,863.46

Other Expenses:

For Binding Books and Periodicals....	854.50
Books	4,780.50
Lighting	873.00
Magazines and Newspapers.....	613.66
Office Supplies and Printing.....	954.19
Sub Libraries.....	438.29
Various Other Supplies.....	452.67
All Other Expenses.....	570.08
	\$ 25,750.35

REVENUE

PUBLIC SERVICE ENTERPRISES

WATER DEPARTMENT

Cash Receipts.....	\$ 343,869.64	
Transfers	11,489.49	
		\$ 355,359.13

Expended

Salaries and Labor:

To Various Persons.....	\$ 149,776.38
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Other Expenses:

For Auto Repairs and Supplies.....	4,733.88
Equipment and Repairs.....	11,987.67
Fuel	31,504.12
Hay, Grain, Straw, etc.....	602.15
Insurance	2,181.03
Lighting	148.84
Lumber	182.96
Meters and Fittings.....	6,586.15
Office Supplies and Printing.....	3,364.01
Oil, Waste, Packing, etc.....	2,377.99
Pensions	365.00
Pipe and Fittings.....	17,420.54
Refunds	295.66
Transfers	4,040.41
Telephone	256.24
Transportation	1,278.69
Vacancy List.....	38.14
Valves, Gates, Hydrants, etc.....	3,684.23
Various Other Supplies.....	805.70
Water Works Debt Payment.....	47,000.00
Water Works Interest.....	52,386.25
All Other Expenses.....	27,348.58

		\$ 368,364.62
Debit Balance to 1920.....		13,005.49
		\$ 355,359.13

REVENUE

CEMETERIES

CEMETERIES

Receipts	\$	24,570.61	
Balance from 1918.....		4,733.17	
			\$ 29,303.78

Expended

Salaries and Wages:

To Thomas Duckworth, Supt. Edson		
Cemetery	\$	1,516.66
Other Salaries and Labor.....		17,028.67

Other Expenses:

For Hay, Grain, Straw, etc.....	410.13
Hardware, Equipment, etc.....	1,472.45
Lumber	280.80
Office Supplies and Printing.....	45.25
Plants, etc.....	1,293.20
Repairing Property.....	525.30
Transfers	22.92
Water	124.88
All Other.....	469.04

		\$ 23,189.30
Balance to 1920.....		6,114.48

\$ 29,303.78

REVENUE

DEBT, INTEREST, SINKING FUNDS

INTEREST

Appropriation	\$ 227,393.07	
	<u> </u>	\$ 227,393.07

Expended

For Interest.....	\$ 220,729.71	
	<u> </u>	\$ 220,729.71
Balance to 1920.....		6,663.36
		<u> </u>
		\$ 227,393.07

CITY DEBT

Appropriation	\$ 330,040.00	
	<u> </u>	\$ 330,040.00

Expended

To Various Financial Institutions and In-		
dividuals	\$ 330,040.00	
	<u> </u>	\$ 330,040.00

SINKING FUNDS

Appropriation	\$ 30,500.00	
	<u> </u>	\$ 30,500.00

Expended

To the Commissioners of Sinking Funds..	\$ 30,500.00	
	<u> </u>	\$ 30,500.00

REVENUE



TAXES

STATE TAX

Appropriation	\$ 234,520.00	
	<u> </u>	\$ 234,520.00

Expended

To Commonwealth of Massachusetts.....	\$ 234,520.00	
	<u> </u>	\$ 234,520.00

NATIONAL BANK TAX

Appropriation	\$ 11,563.29	
	<u> </u>	\$ 11,563.29

Expended

To Commonwealth of Massachusetts.....	\$ 11,563.29	
	<u> </u>	\$ 11,563.29

COUNTY TAX

Appropriation	\$ 120,487.16	
	<u> </u>	\$ 120,487.16

Expended

To Commonwealth of Massachusetts..... \$ 120,487.16
\$ 120,487.16

LIQUOR LICENSES

Appropriation	\$ 21,444.25	
	<u> </u>	\$ 21,444.25

Expended

To Commonwealth of Massachusetts.....	\$ 21,444.25	
	<u> </u>	\$ 21,444.25

GRADE CROSSINGS

Appropriation	\$	2,320.00	
			\$ 2,320.00

Expended

To Commonwealth of Massachusetts....	\$ 2,320.00	
	<u> </u>	\$ 2,320.00

STATE HIGHWAY TAX

Appropriation	\$	1,629.06	
			\$ 1,629.06

Expended

To Commonwealth of Massachusetts.....	\$	1,629.06	
			\$ 1,629.06

SPECIAL TAX—ARMY AND NAVY MEN

Appropriation	\$	14,071.20	
			\$ 14,071.20

Expended

To Commonwealth of Massachusetts.....	\$	14,071.20	
			\$ 14,071.20

HALE'S BROOK IMPROVEMENT

Appropriation	\$	923.46	
			\$ 923.46

Expended

To Commonwealth of Massachusetts.....	\$	923.46	
			\$ 923.46

REVENUE

UNCLASSIFIED

CLAIMS

Appropriation	\$ 13,355.17	
		\$ 13,555.17
Expended		
Other Expenses:		
For Damages	\$ 411.99	
Injuries	225.00	
Services and 1918 Bills.....	980.54	
Street Watering and Tax Refunds	549.00	
All Other Expenses.....	2,448.95	
		\$ 4,615.48
Returned to Treasury.....		8,739.69
		\$ 13,355.17

REVISION OF ORDINANCES

Balance from 1918.....	\$ 495.50	
		495.50
Balance to 1920.....	\$ 495.50	
		\$ 495.50

AUDITING BOOKS

Appropriation	\$ 1,000.00	
		\$ 1,000.00
Expended		
Other Expenses:		
For Auditing	\$ 997.50	
		\$ 997.50
Returned to Treasury.....		2.50
		\$ 1,000.00

WORKMEN'S COMPENSATION ACT

Appropriation	\$ 6,164.50	
		\$ 6,164.50
Expended		
Other Expenses:		
To Various Persons (Compensation)..	\$ 4,053.22	
First Aid Medical Treatment.....	626.25	
Printing	24.00	
All Other Expenses.....	30.90	
		\$ 4,734.37
Returned to Treasury.....		1,430.13
		\$ 6,164.50

GENERAL EXPENSES

Appropriation	\$ 12,062.07	
		\$ 12,062.07

Expended**Other Expenses:**

For Auto Supplies and Repairs.....	\$ 234.89	
Decorations	342.35	
Fourth of July Celebration.....	3,069.58	
Music	575.25	
Office Supplies and Printing.....	2,733.65	
Preparation of Bonds.....	1,230.00	
Services	1,266.49	
Transfers	134.24	
Transportation	646.35	
All Other Expenses.....	1,829.27	
		\$ 12,062 07

NON-REVENUE

HEALTH AND SANITATION

SEWER CONSTRUCTION

Balance from 1918.....	\$ 4,240.07	
Appropriation	\$ 125,000.00	
		\$ 129,240.07
Expended		
Wages:		
To Labor	\$ 109,991.77	
Other Expenses:		
For Brick and Cement.....	1,263.25	
Castings	648.53	
Fuel	1,334.63	
Hardware and Equipment.....	1,738.00	
Lumber	1,192.87	
Pipe and Fittings.....	5,223.35	
Transfers	2,914.91	
All Other Expenses.....	2,142.71	
		\$ 12,645.02
Balance to 1920.....		2,790.05
		\$ 129,240.07

ISOLATION HOSPITAL

Appropriation	\$ 47,581.02	
Balance from 1918.....	1,461.66	
		\$ 49,042.68
Expended		
Wages:		
To Various Persons.....	\$ 7,643.36	
Other Expenses:		
For Architect	1,525.91	
Contracts	750.00	
Extra Work	9,256.03	
Fuel	420.37	
Transfers	3,539.80	
Various Other Supplies.....	4,702.45	
All Other Expenses.....	814.47	
		\$ 28,652.39
Balance to 1920.....		20,390.29
		\$ 49,042.68

ISOLATION HOSPITAL EQUIPMENT

Balance from 1918.....	\$	2,700.00	
Transfer		154.00	
			\$ 2,854.00
Expended			
Other Expenses:			
For Architect's Services.....	\$	735.00	
Kitchen Equipment.....		409.00	
Laundry Equipment.....		1,550.00	
			\$ 2,694.00
Balance to 1920.....			160.00
			\$ 2,854.00

PUBLIC BATHS AND COMFORT STATION

Appropriation	\$	2,600.00	
			\$ 2,600.00
Expended			
Other Expenses:			
For Advertising	\$	35.57	
Contracts		16,657.00	
All Other Expenses.....		55.00	
			\$ 16,747.57
Balance to 1920.....			9,252.43
			\$ 26,000.00

NON-REVENUE

HIGHWAYS AND BRIDGES

PAVING

Balance from 1918.....	\$	80.36	
Appropriation		70,000.00	
Receipts		1,420.26	
			\$ 71,500.62

Expended

Wages:			
To Labor	\$	46,937.47	
Other Expenses:			
For Brick and Cement.....		5,753.52	
Crushed Stone.....		3,008.18	
Freight		761.73	
Paving Blocks		5,404.47	
Sand and Loam.....		1,775.76	
Steam Roller.....		3,850.00	
Transfers		772.31	
Teaming		769.50	
All Other Expenses.....		2,467.68	
			\$ 71,500.62

MACADAMIZING

Balance from 1918.....	\$	124.01	
Appropriation		40,000.00	
			\$ 40,124.01

Expended

Wages:			
To Labor	\$	29,551.82	
Other Expenses:			
For Equipment and Repairs.....		260.61	
Fuel		1,703.35	
Oil, Tar, Tarite.....		4,158.01	
Stone		1,090.82	
Teaming		81.00	
Transfers		117.65	
All Other Expenses.....		464.80	
			\$ 37,428.06
Balance to 1920.....			2,695.95
			\$ 40,124.01

WIDENING SCHOOL STREET AND MAMMOTH ROAD

Balance from 1918.....	\$	632.69	
			\$ 632.69

Expended

Wages:			
To Labor	\$	112.54	
Other Expenses			
For Land		518.25	
Recording Deed.....		1.90	
			\$ 632.69

NEW SIDEWALKS

Balance from 1918.....	\$	281.04	
Appropriation		10,000.00	
	\$		10,281.04
Expended			
Wages:			
To Labor	\$	5,118.75	
Other Expenses:			
For Concrete		612.87	
Edgestone		3,493.83	
Granolithic Work.....		121.08	
Transfers		363.75	
	\$		9,710.28
Balance to 1920.....			570.76
	\$		10,281.04

BRIDGE CONSTRUCTION

Appropriation	\$	20,000.00	
	\$		20,000.00
Expended			
Wages:			
To Labor	\$	5,829.30	
Other Expenses			
For Equipment and Repairs.....		4,891.66	
Lumber		1,873.82	
Teaming		553.50	
Transfers		4,406.67	
Various Other Supplies.....		265.55	
All Other Expenses.....		137.13	
	\$		17,957.63
Balance to 1920.....			2,042.37
	\$		20,000.00

CONSTRUCTION AND EXTENSION OF FIRST STREET

Appropriation	\$	41,000.00	
	\$		41,000.00
Expended			
Wages:			
To Labor	\$	280.28	
Other Expenses			
For Contracts		17,382.67	
Equipment		210.00	
Transfers		7.03	
All Other Expenses.....		39.89	
	\$		17,919.87
Balance to 1920.....			23,080.13
	\$		41,000.00

NON-REVENUE

EDUCATION

ACQUIRING LAND, CONSTRUCTING NEW HIGH SCHOOL

Balance from 1918.....	\$ 27,913.40	
	<u> </u>	\$ 27,913.40

Expended

Wages:

To Labor	\$ 232.79
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Other Expenses:

For Architectural Services.....	1,648.79
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Contracts	449.80
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All Other Expenses.....	9.97
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	<u> </u>	\$ 2,341.35
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Balance to 1920.....		25,572.05
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	<u> </u>	\$ 27,913.40
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ACQUIRING LAND AND CONSTRUCTING SCHOOLS

Balance from 1918.....	\$ 13,162.67
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Appropriation	\$ 236,825.00
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	<u> </u>	\$ 249,987.67
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Expended

Wages:

To Labor	\$ 11,469.45
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Other Expenses:

For Architectural Services.....	8,494.55
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Contracts	70,188.73
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Equipment	14,603.25
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Land and Buildings.....	13,490.00
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Transfers	7,130.47
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All Other Expenses.....	570.74
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	<u> </u>	\$ 125,947.19
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Balance to 1920.....		\$ 124,040.48
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	<u> </u>	\$ 249,987.67
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NON-REVENUE

WATER WORKS

ADDITIONS TO PLANT NO. 2

Balance from 1918.....	\$	3,785.51	
		<u> </u>	\$ 3,785.51

Expended

Other Expenses:			
For Municipal Transfer.....	\$	3,785.51	
		<u> </u>	\$ 3,785.51

EXTENSION WATER MAINS AND EQUIPMENT

Appropriation	\$	80,000.00	
		<u> </u>	\$ 80,000.00

Expended

Wages:			
To Labor	\$	14,704.76	
Other Expenses:			
For Hardware and Equipment.....		2,880.69	
Packing, etc.....		63.18	
Pipe, Valves, etc.....		3,925.24	
Transfers		6,137.17	
Various Other Supplies.....		32.50	
All Other Expenses.....		55.00	
		<u> </u>	\$ 27,798.54
Balance to 1920.....			52,201.46
			<u> </u>
			\$ 80,000.00

ACQUIRING LAND AND PROTECTING WATER SUPPLY

Appropriation	\$	3,785.51	
		<u> </u>	\$ 3,785.51

Expended

Other Expenses:			
For Services	\$	1.75	
		<u> </u>	\$ 1.75
Balance to 1920.....			3,783.76
			<u> </u>
			\$ 3,785.51

NON-REVENUE

UNCLASSIFIED

MUNICIPAL PURPOSES

Balance from 1918.....	\$ 4,877.96		
		\$	4,877.96
Expended			
Other Expenses:			
For Transfer	\$ 252.94		
		\$	252.94
Balance to 1920.....			4,625.02
		\$	4,877.96

LOWELL MEMORIAL AUDITORIUM

Appropriation	\$ 145,229.05		
		\$	145,229.05
Expended			
Wages:			
To Labor	59.97		
Other Expenses			
For Architectural Services.....	7,000.00		
Land and Buildings.....	112,713.15		
Transfers	189.29		
All Other Expenses.....	377.67		
		\$	120,340.08
Balance to 1920.....			24,888.97
		\$	145,229.05

FUNDS

SINKING
HAPGOOD WRIGHT
JOHN DAVIS
CEMETERY

SINKING FUNDS, 1919

Water Works due November 1, 1920—\$1,000,000.00	
Value January 1, 1919.....	\$910,394.56
Value December 31, 1919.....	968,360.54
Increase during year.....	\$ 57,965.98
City Hall and Memorial Building due October, 1920—\$540,000.00.	
Value January 1, 1919.....	\$415,644.03
Value December 31, 1919.....	442,807.65
Increase during year.....	\$ 27,163.62
High School due April, 1921—\$150,000.00	
Value January 1, 1919.....	\$141,475.57
Value December 31, 1919.....	150,678.10
Increase during year.....	\$ 9,202.53
New School Houses due July, 1926—\$200,000.00	
Value January 1, 1919.....	\$130,141.15
Value December 31, 1919.....	139,956.54
Increase during year.....	\$ 9,815.39

CEMETERY FUND

Cemetery Perpetual Care Fund:	
On hand January 1, 1919	114,990.00
On hand January 1, 1920.....	\$126,740.00
Increase during year 1919.....	\$ 11,750.00
Deposited in banks.....	\$126,740.00
Interest undrawn.....	21,634.98
Total amount of fund Jan. 1, 1920.....	\$148,374.98

REPORT OF THE COMMISSIONERS OF THE SINKING FUNDS FOR THE YEAR 1919

Lowell, Mass., Jan. 1, 1920.

To the Municipal Council of Lowell:

Gentlemen:—The Commissioners of the Sinking Funds of the City of Lowell have the honor to submit the following report of the several Sinking Funds of said City and of the Hapgood Wright Centennial Trust Fund for the year 1919:

Full value of all Sinking Funds Jan. 1, 1920	\$1,701,802.83	
Full value of all Sinking Funds Jan. 1, 1919	1,597,655.31	
Increase during the Year.....		\$ 104,147.52
Value of Water Loan Sinking Fund Jan. 1, 1920.....	\$ 968,360.54	
Value of Water Loan Sinking Fund Jan. 1, 1919.....	910,394.56	
Increase during the year.....		57,965.98
Value of all other Sinking Funds Jan. 1, 1920	\$ 733,442.29	
Value of all other Sinking Funds Jan. 1, 1919	687,260.75	
Increase during the year.....		\$ 46,181.54
Total increase as above.....		\$ 104,147.52
Value of the Hapgood Wright Centennial Trust Fund Jan. 1, 1920.....	\$ 12,655.03	
Value of the Hapgood Wright Centennial Trust Fund Jan. 1, 1919.....	5,691.58	
Increase during the year.....		\$ 6,963.45

WATER LOAN SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1919.....	\$ 908,450.00	\$ 1,944.56	\$ 910,394.56
RECEIVED DURING 1919:			
CASH—Annual Appropriation		16,000.00	
Income on Investments		42,566.56	
Income on bank deposits		120.85	
Securities, sold or matured		47,000.00	
SECURITIES—Bought during 1919.....	106,500.00		
	\$1,014,950.00	107,631.97	
PAID DURING 1919:			
SECURITIES — Matured and paid	47,000.00		
CASH—For securities purchased		107,221.43	
On hand Dec. 31, 1919...	\$ 967,950.00	410.54	\$ 968,360.54
Increase during 1919.....			
			\$ 57,965.98

Securities Belonging to This Fund**Coupon Bonds**

	Rate	Value	Maturity
26 American Tel. & Tel.....	4%	\$26,000.00	July 1929
10 Baltimore & Ohio Railroad.....	3½	10,000.00	July 1925
10 Boston & Lowell Railroad.....	3½	10,000.00	July 1921
8 Chicago, Burlington & Quincy.....	4	8,000.00	July 1949
4 Chicago, Milwaukee & St. Paul....	5	4,000.00	Jan. 1921
4 Chicago, Milwaukee & St. Paul....	6	4,000.00	July 1920
10 Chicago, Milwaukee & St. Paul....	6	10,000.00	July 1920
5 City of Bridgeport.....	4¼	5,000.00	July 1920
15 City of Chicago.....	4	15,000.00	Jan. 1920
5 City of Duluth.....	4	5,000.00	July 1920
5 City of Milwaukee.....	4	5,000.00	July 1920
3 City of Minneapolis.....	4	3,000.00	Jan. 1920
28 City of Minneapolis.....	4¾	28,000.00	July 1920
4 City of Newton.....	3½	4,000.00	Jan. 1922
26 City of Waltham.....	3½	26,000.00	July 1920
14 City of Waterville.....	4	14,000.00	July 1929
5 City of Wilkesbarre.....	4	5,000.00	July 1920
5 City of Milwaukee.....	4½	5,000.00	Jan. 1922
20 Illinois Central Railroad.....	3½	20,000.00	July 1952
6 Milwaukee, Lake Shore & West....	6	6,000.00	July 1924

9	New York, Lack. & West. Railroad.	6	9,000.00	Jan. 1921
60	New York, New Haven & Hart....	4	60,000.00	July 1955
12	Town of Athol.....	4	12,000.00	July 1924
4	Town of Canton, Mass.....	4	4,000.00	July 1920
1	Town of Marblehead.....	4	1,000.00	July 1920
4	Boston & Maine Railroad.....	4	4,000.00	Aug. 1942
5	City of Hamilton.....	5	2,500.00	Feb. 1922
2	City of South Omaha.....	6	1,000.00	Aug. 1925
10	Penobscot Shore Line Railroad....	4	10,000.00	Aug. 1920
5	State of Minnesota.....	4½	5,000.00	Feb. 1922
5	State of Minnesota.....	4½	5,000.00	Aug. 1921
5	State of Minnesota.....	4½	6,000.00	Aug. 1921
5	Town of Milton.....	3½	5,000.00	Aug. 1920
15	Boston & Maine Railroad.....	4	15,000.00	Sept. 1926
5	Bay City, Mich.....	5	5,000.00	Sept. 1920
5	City of Akron.....	5	5,000.00	Mar. 1920
5	City of Canton.....	5	5,000.00	Sept. 1920
2	City of Canton.....	5	2,000.00	Mar. 1920
3	City of Canton.....	5	3,000.00	Mar. 1921
3	City of Canton.....	5	3,000.00	Mar. 1920
2	City of Canton.....	5½	2,000.00	Mar. 1921
5	City of Dayton.....	5	5,000.00	Sept. 1920
3	City of Lawrence.....	4	3,000.00	Mar. 1920
4	City of Lorain.....	5	4,000.00	Sept. 1920
3	City of South Omaha.....	6	1,250.00	Mar. 1925
1	City of South Omaha.....	6	300.00	Mar. 1920
5	Louisville & Nashville Railroad...	6	5,000.00	Mar. 1921
2	St. Johnsbury & Lake Champlain..	5	2,000.00	Mar. 1944
2	Boston & Lowell Railroad.....	4	2,000.00	Apr. 1932
1	City of Dayton.....	4½	1,000.00	Oct. 1921
2	City of Flint.....	4½	2,000.00	Apr. 1920
10	City of Haverhill.....	4	10,000.00	Apr. 1926
1	City of Lakewood, Ohio.....	4½	1,000.00	Oct. 1920
1	City of Lakewood, Ohio.....	5	388.00	Oct. 1920
1	City of Lakewood, Ohio.....	5	230.00	Oct. 1920
1	City of Lakewood, Ohio.....	5	352.00	Oct. 1920
1	City of Lima, Ohio.....	5	1,000.00	Apr. 1920
1	City of Lima, Ohio.....	5	1,000.00	Oct. 1920
1	City of Lima, Ohio.....	5	1,000.00	Apr. 1921
13	City of Hamilton, Ohio.....	5	13,000.00	Apr. 1920
44	City of Lowell.....	4	44,000.00	Oct. 1920
1	City of Lowell.....	4	1,000.00	Apr. 1921
1	City of Quincy.....	3.65	1,000.00	Apr. 1926
5	City of Saginaw.....	4	5,000.00	Apr. 1920
3	City of Youngstown, Ohio.....	5	3,000.00	Oct. 1920
12	City of Youngstown, Ohio.....	5	5,930.00	Oct. 1920
5	City of Youngstown, Ohio.....	5	5,000.00	Oct. 1920
10	Fitchburg Railroad.....	3½	10,000.00	Oct. 1920
5	Rome, Watertown & Ogdensburg..	5	5,000.00	July 1922
2	Town of Northfield.....	3½	1,000.00	Oct. 1920
2	Town of Northfield.....	3½	1,000.00	Oct. 1921

AUDITOR'S REPORT.

115

3	Town of Northfield.....	3½	1,500.00	Oct.	1922
3	Town of Northfield.....	3½	1,500.00	Oct.	1923
3	Town of Northfield.....	3½	1,500.00	Oct.	1924
3	Town of Northfield.....	3½	1,500.00	Oct.	1925
3	Town of Northfield.....	3½	1,500.00	Oct.	1926
3	Town of Northfield.....	3½	1,500.00	Oct.	1927
3	Town of Northfield.....	3½	1,500.00	Oct.	1928
3	Town of Northfield.....	3½	1,500.00	Oct.	1929
3	Town of Northfield.....	3½	1,500.00	Oct.	1930
3	Town of Northfield.....	3½	1,500.00	Oct.	1931
1	Liberty Loan U. S. Govt.....	4¼	10,000.00	Oct. 15,	1933-1938
35	Boston Elevated Railroad.....	4	35,000.00	May	1935
12	Chicago, Burlington & Quincy....	4	12,000.00	May	1927
2	City of Beverly.....	4	2,000.00	May	1920
1	City of Cleveland.....	4½	1,000.00	Nov.	1920
8	City of Lowell.....	4	8,000.00	Nov.	1920
2	City of East Portland.....	6	2,000.00	May	1921
1	City of Saginaw.....	4	1,000.00	May	1920
5	City of San Francisco.....	5	5,000.00	May	1920
15	Delaware & Hudson Railroad....	4	15,000.00	May	1943
40	Kennebec Water District.....	3½	40,000.00	May	1925
5	New York, New Haven & Hart....	4	5,000.00	May	1954
1	Town of Attleborough.....	3½	1,000.00	Nov.	1920
4	Town of Reading.....	3½	4,000.00	Nov.	1920
2	Town of Weymouth.....	4	2,000.00	Nov.	1920
20	Worcester Consolidated Railroad..	5	20,000.00	Nov.	1927
5	Liberty Loan U. S. Govt.....	4¼	50,000.00	Nov. 15,	1942
10	Boston Elevated Railroad.....	5	10,000.00	Dec.	1942
1	City of Chicopee.....	3½	1,000.00	June	1920
2	City of Cleveland.....	4½	2,000.00	Dec.	1920
20	City of Cleveland.....	5	20,000.00	Dec.	1920
5	City of Minneapolis.....	4	5,000.00	June	1920
36	Concord & Montreal Railroad....	4	36,000.00	June	1920
18	Lynn & Boston Railroad.....	5	18,000.00	Dec.	1924
	U. S. Govt. Cert. of Indebt.....	4½	34,500.00	June 15,	1920

Registered Bonds

1	Boston & Maine Railroad.....	4½	10,000.00	Jan.	1944
1	City of Boston.....	3½	10,000.00	Jan.	1920
1	City of Boston.....	3½	1,000.00	Jan.	1920
1	City of Portland.....	3½	4,500.00	July	1922
1	Chicago & No. Western Railroad..	4	5,000.00	Aug. 15,	1926
2	Penobscot Shore Line Railroad....	4	2,000.00	Aug.	1920
1	City of Buffalo.....	3½	5,000.00	Sept.	1920
1	City of Boston.....	4	5,000.00	Oct.	1920
10	City of Los Angeles.....	3¾	10,000.00	Oct.	1920
1	Commonwealth of Mass.....	3½	20,000.00	Oct.	1920
1	City of Cleveland.....	5	10,000.00	Nov.	1920

AUDITOR'S REPORT.

1 City of New Bedford.....	3½	4,000.00	June 1920
1 City of New Bedford.....	3½	7,000.00	June 1920
1 City of Salem.....	4	7,000.00	June 1920

\$967.950

Cash on deposit in Appleton
National Bank 410.54

\$968,360.54

CITY HALL AND MEMORIAL BUILDING SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1919.....	\$ 410,700.00	\$ 4,944.03	\$ 415,644.03
RECEIVED DURING 1919:			
CASH—Annual Appropriation		7,500.00	
Income on Investments		19,939.26	
Income on bank deposits		114.55	
Securities, sold or matured		33,200.00	
SECURITIES—Bought during 1919	65,000.00		
	\$ 475,700.00	\$ 65,697.84	
PAID DURING 1919:			
SECURITIES — Matured and paid	33,200.00		
CASH—For securities purchased		65,390.19	
On hand Dec. 31, 1919...	\$ 442,500.00	307.65	\$ 442,807.65
Increase during 1919.....			\$ 27,163.62

Securities Belonging to This Fund

Coupon Bonds

	Rate	Value	Maturity
8 American Tel. & Tel. Co.....	4%	\$ 8,000.00	July 1929
8 Chicago, Burlington & Quincy R. R.	4	8,000.00	July 1949
3 Chicago, Milwaukee & St. Paul....	6	3,000.00	July 1920
4 Chicago, Milwaukee & St. Paul....	5	4,000.00	Jan. 1921
25 Chicago, Milwaukee & St. Paul....	5	25,000.00	July 1921
3 City of Chicago.....	4	3,000.00	Jan. 1920
1 City of Danbury.....	4	1,000.00	Jan. 1920
1 City of Everett.....	4	1,000.00	July 1920
5 City of Fort Wayne.....	3½	5,000.00	Jan. 1920

7	City of Indianapolis.....	4	7,000.00	Jan. 1927
1	City of Middletown, Conn.....	3 $\frac{1}{2}$	1,000.00	July 1921
5	City of Milwaukee.....	4 $\frac{1}{2}$	5,000.00	Jan. 1921
2	City of Minneapolis.....	4 $\frac{3}{4}$	2,000.00	July 1920
10	City of Meriden.....	4 $\frac{1}{4}$	10,000.00	July 1920
5	Illinois Central Railroad.....	3 $\frac{1}{2}$	5,000.00	July 1952
3	Minneapolis Union Railroad.....	6	3,000.00	July 1922
7	New York, Lack. & Western R. R..	6	7,000.00	Jan. 1921
3	New York, New Haven & Hart....	4	3,000.00	July 1955
1	Town of Peabody.....	4	1,000.00	July 1921
6	Town of Warwick, R. I.....	4 $\frac{1}{2}$	6,000.00	July 1920
10	City of Augusta Water Dist.....	4	10,000.00	Aug. 1934
2	City of Hamilton.....	5	1,000.00	Feb. 1920
1	City of Toledo.....	4 $\frac{1}{2}$	1,000.00	Feb. 1920
5	Town of Methuen.....	4	2,500.00	Aug. 1920
10	Boston & Maine Railroad.....	4	10,000.00	Sept. 1926
2	City of Detroit.....	4	2,000.00	Mar. 1920
1	City of Lorain.....	5	1,000.00	Sept. 1920
3	City of Trenton.....	4 $\frac{1}{2}$	3,000.00	Sept. 1920
9	Louisville & Nashville Railroad....	6	9,000.00	Mar. 1921
6	City of Lowell.....	4	6,000.00	Oct. 1920
1	City of Lowell.....	4	1,000.00	Apr. 1921
5	City of Minneapolis.....	4	5,000.00	Apr. 1921
2	City of Newton.....	4	2,000.00	Apr. 1921
3	City of Saginaw.....	4	3,000.00	Apr. 1920
9	Town of Arlington.....	4	9,000.00	Oct. 1925
10	Chicago, Burlington & Quincy R. R.	4	10,000.00	May 1927
4	City of Akron.....	5	4,000.00	Nov. 1920
10	City of E. Portland, O.....	6	10,000.00	May 1921
67	City of Lowell.....	4	67,000.00	Nov. 1920
6	City of Malden.....	4	6,000.00	May 1924
5	City of St. Paul.....	4	5,000.00	May 1920
5	City of San Francisco.....	5	5,000.00	May 1920
10	Delaware & Hudson Railroad.....	4	10,000.00	May 1943
10	Fitchburg Railroad.....	4	10,000.00	May 1925
5	New York, New Haven & Hart....	4	5,000.00	May 1954
2	Town of Attleborough.....	3 $\frac{1}{2}$	2,000.00	Nov. 1920
3	Town of Weymouth.....	4	3,000.00	Nov. 1920
5	Worcester Consolidated Railroad..	5	5,000.00	Dec. 1927
5	City of Brockton.....	4	5,000.00	Dec. 1923
3	City of Chicopee.....	3 $\frac{1}{2}$	3,000.00	June 1920
2	City of Hamilton.....	4 $\frac{1}{2}$	1,000.00	Dec. 1920
20	City of Minneapolis.....	4	20,000.00	June 1920
1	Concord & Montreal Railroad....	4	1,000.00	June 1920
10	Lynn & Boston Railroad.....	5	10,000.00	Dec. 1924
3	Town of Stoughton.....	4	3,000.00	June 1920
5	Town of Stoughton.....	4	5,000.00	June 1921
2	Victory Loan (Liberty Loan).....	4 $\frac{3}{4}$	20,000.00	May 1923
	U. S. Govt. Cert. of Indebt.....	4 $\frac{1}{2}$	14,000.00	June 1920

Registered Bonds

1 City of Providence.....	4	10,000.00	July 1921
1 City of Providence.....	4	1,000.00	July 1921
1 Town of Brookline.....	3½	3,000.00	Jan. 1920
1 Chicago & Northwestern Railroad.	4	10,000.00	Aug. 1926
1 City of New Bedford.....	4	5,000.00	Mar. 1921
1 City of New Bedford.....	4	7,000.00	Mar. 1921
1 Commonwealth of Mass.....	3½	5,000.00	Jan. 1930
1 City of Boston.....	4	3,000.00	Oct. 1920
1 City of Brockton.....	4	1,000.00	May 1922
		\$442,500.00	
Cash on deposit in Appleton National Bank		307.65	
		\$442,807.65	

LOWELL HIGH SCHOOL SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1919.....	\$ 140,500.00	\$ 975.57	\$ 141,475.57
RECEIVED DURING 1919:			
CASH—Annual Appropriation		3,000.00	
Income on Investments		6,197.50	
Income on bank deposits		34.15	
Securities, sold or matured	\$ 1,000.00		
SECURITIES—Bought during 1919	11,000.00		
	\$ 151,500.00	\$ 11,207.22	
PAID DURING 1919:			
SECURITIES — Matured and paid	1,000.00		
CASH—For securities purchased		11,029.12	
On hand Dec. 31, 1919...	\$ 150,500.00	\$ 178.10	\$ 150,678.10
Increase during 1919.....		\$ 9,202.53	

Securities Belonging to This Fund

Coupon Bonds

	Rate	Value	Maturity
3 American Tel. & Tel. Co.....	4%	\$ 3,000.00	July 1929
5 Chicago, Burlington & Quincy....	4	5,000.00	July 1949
5 Chicago, Milwaukee & St. Paul....	6	5,000.00	July 1920
3 Chicago, Milwaukee & St. Paul....	5	3,000.00	Jan. 1921
8 Chicago, Milwaukee & St. Paul....	5	8,000.00	July 1921
3 City of Fort Wayne.....	3½	3,000.00	Jan. 1920
5 City of Indianapolis.....	4	5,000.00	Jan. 1927
5 City of Milwaukee.....	4½	5,000.00	July 1922
5 City of Milwaukee.....	4½	5,000.00	Jan. 1921
3 City of Seattle.....	5	1,500.00	July 1920
3 New York, Lack. & Western R. R.	6	3,000.00	Jan. 1921
12 New York, New Haven & Hartford	4	12,000.00	July 1955
1 Boston & Maine Railroad.....	4	1,000.00	Aug. 1942
5 City of Akron.....	5¼	5,000.00	Sept. 1920
1 City of Salem.....	3½	1,000.00	Mar. 1920
1 City of Dayton.....	5	1,000.00	Mar. 1920
4. City of Cleveland.....	4½	4,000.00	Oct. 1920
11 City of Lowell.....	4	11,100.00	Oct. 1920
4 City of Dayton.....	4½	4,000.00	Oct. 1921
2 City of Saginaw.....	4	2,000.00	Apr. 1920
5 Chicago, Burlington & Quincy....	4	5,000.00	May 1927
27 City of Lowell.....	4	27,000.00	Nov. 1920
1 City of St. Paul.....	4	1,000.00	May 1920
10 New York, New Haven & Hartford	4	10,000.00	May 1954
1 Town of Attleborough.....	3½	1,000.00	Nov. 1920
2 City of Dayton.....	5	2,000.00	Dec. 1920
3 City of Haverhill.....	4	3,000.00	Dec. 1922
U. S. Govt. Cert. of Indebt.....	4½	6,000.00	June 1920

Registered

1 City of Buffalo.....	3½	1,000.00	July 1920
1 Chicago & Northwestern Railroad	4	5,000.00	Aug. 1926
1 City of Cambridge.....	3½	1,000.00	Nov. 1920
1 City of New Bedford.....	3½	1,000.00	June 1920

\$ 150,500.00

On deposit in Appleton
National Bank.....

178.10

\$ 150,678.10

NEW SCHOOL HOUSES SINKING FUND

	Securities	Cash	Total
On hand Jan. 1, 1919.....	\$ 130,000.00	\$ 141.15	\$ 130,141.15
RECEIVED DURING 1919:			
CASH—Annual Appropriation		4,000.00	
Income on investments		5,762.50	
Income on bank deposits		56.25	
Securities, sold or matured		4,000.00	
SECURITIES—Bought during 1919	13,500.00		
	\$ 143,500.00	\$ 13,959.90	
PAID DURING 1919:			
SECURITIES — Matured and paid	4,000.00		
CASH—For securities purchased		13,503.36	
On hand Dec. 31, 1919...	\$ 139,500.00	\$ 456.54	\$ 139,956.54
Increase during 1919.....			\$ 9,815.39

Securities Belonging to This Fund

Coupon Bonds

	Rate	Value	Maturity
3 American Tel. & Tel. Co.....	4%	\$ 3,000.00	July 1929
4 Chicago, Burlington & Quincy R. R.	4	4,000.00	July 1949
5 Chicago, Milwaukee & St. Paul....	5	5,000.00	Jan. 1921
3 City of Chicago.....	4	3,000.00	Jan. 1920
1 City of Chicago.....	4	1,000.00	Jan. 1921
5 City of Duluth.....	4	5,000.00	Jan. 1921
7 City of Fort Wayne.....	3½	7,000.00	Jan. 1920
8 City of Indianapolis.....	4	8,000.00	Jan. 1927
3 City of Milwaukee.....	4½	3,000.00	Jan. 1921
1 City of Minneapolis.....	4	1,000.00	Jan. 1920
2 Minneapolis Union Railroad.....	6	2,000.00	July 1922
1 New York, Lack. & Western R. R..	6	1,000.00	Jan. 1921
4 Boston & Maine Railroad.....	4	4,000.00	Aug. 1942
5 City of Akron.....	5¼	5,000.00	Sept. 1920
7 City of Lawrence.....	4	7,000.00	Mar. 1920
2 City of Lorain.....	5	2,000.00	Sept. 1920
1 City of Beverly.....	4½	1,000.00	Oct. 1920
1 City of Lowell.....	4	1,000.00	Apr. 1921

3 City of Lowell.....	4	3,000.00	Oct. 1920
3 Chicago, Burlington & Quincy R. R.	4	3,000.00	May 1927
1 City of Everett.....	4	1,000.00	May 1920
14 City of Lowell.....	4	14,000.00	Nov. 1920
5 New York, New Haven & Hartford	4	5,000.00	May 1954
5 Boston Elevated Railroad.....	5	5,000.00	Dec. 1942
2 City of Minneapolis.....	4	2,000.00	June 1920
1 County of Middlesex.....	4	1,000.00	Dec. 1921
8 Concord & Montreal Railroad.....	4	8,000.00	June 1920
1 Town of Winchester.....	4	1,000.00	Dec. 1920
U. S. Govt. Cert. of Indebtedness..	4½	10,500.00	June 1920
3 County of Hillsborough.....	4	3,000.00	June 1921

Registered Bonds

1 City of Minneapolis.....	3½	\$10,000.00.	Jan. 1933
1 Chicago & Northwestern Railroad..	4	5,000.00	Aug. 1926
1 City of Albany.....	4½	5,000.00	Mar. 1920
		\$ 139,500.00	
Cash on deposit in Apple-			
ton National Bank.....		456.54	
		\$ 139,956.54	

HAPGOOD WRIGHT CENTENNIAL FUND

Resolution adopted by the City Council, March 14, 1876: "The sum of \$1,000.00 be accepted from Hapgood Wright, under the conditions specified by him, that the money be placed at interest for 50 years, and at the end of that time the interest to be spent by the City Council (by a two-third vote) for the benefit of the City or its citizens, but the original \$1,000.00 to be always kept on deposit and the interest only to be spent by the City Council at the end of each 50 years."

	Securities	Cash	Total
On hand Jan. 1, 1919.....	\$	5,691.58	\$ 5,691.58
RECEIVED DURING 1919:			
CASH—Income on Invest-			
ments		329.75	
Income on bank de-			
posits		283.12	
Frank Dunbar, Trustee,			
under the will of			
Hapgood Wright, 4/8			
of balance of Estate			
after death of Mrs.			
H. J. Fay, daughter			
of Hapgood Wright..		6,343.79	

	Securities	Cash	Total
F. E. Dunbar (accrued interest)		52.19	
SECURITIES—Bought during 1919	\$ 12,150.00		
	<u>\$ 12,150.00</u>	<u>\$ 12,700.43</u>	
PAID DURING 1919:			
CASH—Securities purchased		12,195.40	
On hand Dec. 31, 1919...	\$ 12,150.00	505.03	\$ 12,655.03
Increase during 1919			\$ 6,963.45

Securities Belonging to This Fund

7 U. S. Govt. Victory Liberty Loan 4¾% Coupon Bonds		\$ 4,650.00
9 U. S. Govt. Victory Liberty Loan 4¾% Registered Bonds		\$ 7,500.00
Cash in Lowell Institution for Savings		505.03
		<u>\$ 12,655.03</u>
Principal sum in fund.....	\$ 7,343.79	
Accrued Interest	5,311.24	
	<u>\$ 12,655.03</u>	

Respectfully submitted,

AUSTIN K. CHADWICK,
CHARLES L. KNAPP,
FRANK P. MCGILLY,

Commissioners of Sinking Funds of the City of Lowell.

JOHN DAVIS LIBRARY FUND

	Cash	Securities	Total
On hand at beginning of year..	\$ 199.45	\$100,527.98	\$100,727.43
On hand at end of year.....	3,256.17	100,712.19	103,968.36

Receipts

Bond matured	\$10,000.00
Mortgage payment ..	25.00
Income on securities..	6,733.15
Interest on deposits..	21.14
Discount on securities bought	644.00
Additional bank tax..	83.42
Total receipts	\$17,506.61
Cash Jan. 1, 1919....	199.45
	<u>\$17,706.06</u>

Payments

Securities purchased (par)	\$10,200.00
Accrued interest on above	10.63
Commission on above.	6.25
Paid to Library Trus- tees	4,233.01
Total payments ...	\$14,449.89
Cash, Dec. 31, 1919..	3,256.17
	<u>\$17,706.06</u>

**ACCOUNT OF THE CITY TREASURER AND COLLECTOR OF
TAXES FOR THE YEAR 1919**

Lowell, Mass., Jan. 1, 1920.

To the Municipal Council:

Gentlemen:—I have the honor to submit the following report of the Receipts and Expenditures of the City of Lowell for the financial year 1919:

Monthly Receipts as Follows:

January	\$ 171,321.51
February	333,246.84
March	542,981.84
April	590,624.93
May	714,343.84
June	334,755.80
July	443,328.41
August	516,648.08
September	590,157.39
October	2,092,709.82
November	620,640.10
December	165,342.06
	<u>\$7,116,100.62</u>
Cash balance Jan. 1, 1919.....	240,374.11
	<u>\$7,356,474.73</u>

Monthly Payments as Follows:

January	\$ 185,739.07	
February	281,008.25	
March	527,034.82	
April	580,009.74	
May	348,521.04	
June	823,483.51	
July	365,213.76	
August	512,207.03	
September	346,845.89	
October	664,618.98	
November	1,325,149.84	
December	1,003,984.19	
		\$6,963,816.12
Cash balance Dec. 31, 1919.....		392,658.61
		\$7,356,474.73

Respectfully submitted,

FRED H. ROURKE,

City Treasurer and Collector of Taxes.

**STATEMENT OF THE CITY TREASURER RELATING
TO SPECIAL FUNDS FOR CARE OF PUBLIC
BURIAL GROUNDS**

Lowell, Mass., Jan. 1, 1920.

To the Municipal Council:

Gentlemen:—I have the honor to submit the following statement of Special Funds in my hands, deposited for perpetual care of Lots in the Public Burial Grounds of the City of Lowell.

On hand Jan. 1, 1919.....	\$114,990.00
Received during the year from:	
Minnie R. Campbell.....	\$100.00
Clara B. Smith, Ida A. Needham, Eva	
C. Stuart & Cora A. Perrin.....	200.00
Margaret H. McKinnon.....	100.00
Willard A. Wheeler.....	50.00
Richard Gumb (Samuel N. Harris)....	100.00
Richard Gumb (Annie M. Gumb).....	100.00
Charlotte L. Stone.....	100.00
Hannah M. Hoyt.....	100.00
Thos. Duckworth (Francis R. Blake)...	25.00
Thos. Duckworth (Wm. S. Stokes).....	25.00

Jessie H. Kyle.....	100.00
Mrs. Wm. H. Baker.....	100.00
Charles A. L. Tucker.....	100.00
Charles A. Castles, Admr.....	100.00
Edward Fisher, Ex.....	200.00
J. F. O'Donnell & Sons (Stratton).....	25.00
Thos. Duckworth (McCaskill).....	25.00
Charles H. Peard.....	100.00
George W. Healey.....	25.00
Freeman Smith	50.00
Clara E. Richardson.....	100.00
Frank J. Sherwood.....	200.00
Janet Wilson Mack.....	100.00
William H. Saunders (Stark).....	25.00
Mrs. Fred Dunlay.....	100.00
Mary Symonds	100.00
Ellen M. Marshall.....	100.00
Helen L. Greig.....	100.00
William Randell	100.00
Nellie J. Varnum.....	100.00
James Regan	100.00
Fred Eastman	100.00
Mrs. Wm. A. Archibald.....	100.00
William H. Saunders (Gavin Holt).....	25.00
James Palm	100.00
Cassie A. Adams.....	100.00
S. Alice Knapp.....	100.00
Severine Anderson	100.00
Andrew Mungall	75.00
Robert Reed	100.00
Wm. A. Keirstead.....	50.00
Eva J. Hamblet.....	100.00
Blanche B. Cowan & Mrs. Josie Hall...	100.00
Mrs. Epoleon Hanson.....	100.00
Gertrude M. Bliss & Sarah M. Woods..	100.00
Mrs. Charles W. Cook.....	100.00
James E. Mountford.....	100.00
Mary L. Rhodes.....	100.00
William D. Large, Ex.....	100.00
John L. Shakford.....	100.00
Edna M. Stokes & Ardelle Cartwright..	100.00
M. C. Knight, Ex.....	100.00
Ida G. McMaster.....	100.00
Jennie Hurley	100.00
Adam Gifford, Ex.....	50.00
Annie L. Maddocks.....	100.00
James Gunn	100.00
Mrs. Sarah Billingsley.....	100.00
Myra L'Esperance	100.00
Est. Jane Nixon.....	100.00
Sarah A. Butterworth.....	100.00

Annie M. Chappell.....	100.00
Ellen M. Crafts.....	100.00
Fred A. Butters.....	100.00
Henry C. Hutchinson.....	100.00
Florence E. Damon.....	100.00
Laura M. Conley.....	25.00
Haven G. Hill, Adm.....	100.00
Alfred Aveyard	100.00
Warren T. Reed.....	100.00
Sarah A. Caswell.....	100.00
Esther A. Barker.....	50.00
Lucy E. Hamlin.....	100.00
Edwin Demack	100.00
Climena W. Smith.....	100.00
George C. Evans.....	100.00
Maria Robinson	100.00
Milo G. Robbins.....	100.00
Annie Loynes	100.00
Joseph Farrell, Adm.....	25.00
Sarah J. Spalding	100.00
Thomas H. Croft.....	100.00
Hattie L. Burns.....	50.00
J. F. O'Donnell & Sons (Forgays).....	25.00
Miss Bertha F. Field.....	100.00
Wm. H. Saunders (Kershaw).....	50.00
Edna L. Ennis.....	100.00
Frank A. Russell.....	100.00
Ethelyn H. Roberts.....	100.00
George A. McMillan.....	100.00
Ellen D. Trull.....	100.00
William Bishop	100.00
Minnie J. Aylward (Henry R. Wood)...	100.00
Minnie J. Alyward.....	100.00
Laforest Beals	100.00
Laforest Beals	100.00
Eva L. Hird.....	100.00
Harriet E. Fowler	100.00
T. R. Hill.....	100.00
Charles J. Barry.....	100.00
Julius T. Adams.....	100.00
John W. Braley.....	100.00
C. S. Gillard.....	100.00
Addie Coburn	100.00
John W. Cole.....	100.00
Telesphore DesForges	100.00
Christina Thumm	100.00
L. A. Derby for Est. Mary Jane Ayer...	100.00
Mrs. Charles E. Seavey.....	50.00
George W. Healey (Elizabeth Brown)...	25.00
Mrs. H. B. Emmons.....	100.00
George L. Ferson.....	100.00

Mrs. Nettie E. Coburn Orcutt.....	100.00
Frank H. Harris (Henry F. Harris)....	100.00
Frank H. Harris (Eliz. M. Harris).....	100.00
Mary A. A. Coburn.....	250.00
Mrs. Charles E. Chesley.....	100.00
George H. Lorman.....	100.00
Adelia M. Foot.....	50.00
Mrs. C. J. Nelson.....	50.00
Oliver A. Jordan.....	50.00
Charles C. Drew, Admr.....	100.00
Pearl S. Rollins.....	100.00
Harold H. Howland.....	100.00
Amos F. Hill, Ex.....	200.00
Abbie F. Rushworth.....	100.00
	\$11,750.00

On hand Dec. 31, 1919	\$126,740.00
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The following amounts are invested as follows:

Lowell Five Cents Savings Bank.....	\$ 14,075.00
Central Savings Bank.....	14,400.00
Merrimack River Savings Bank	15,350.00
Mechanics Savings Bank	14,100.00
City Institution for Savings.....	19,400.00
Lowell Institution for Savings.....	14,325.00
Washington Savings Institution.....	13,600.00
Middlesex Safe Deposit & Trust Co.....	17,940.00
Old Lowell National Bank, Savings Dept.....	3,550.00

On hand Dec. 31, 1919.....	\$126,740.00
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Respectfully submitted

FRED H. ROURKE,
City Treasurer.

GENERAL INFORMATION

CITY AUDITOR'S REPORT OF FUNDS HELD AND
USED BY CITY

PROPERTY OWNED BY CITY

TABLES

LOANS

NEW HIGH SCHOOL

TOTAL VALUATION AND CITY DEBT, 1919**Real Estate and Personal Property Owned by City**

	Personal Valuation	Real Estate Valuation	Total City Valuation
Commissioner of Public Safety	\$ 116,144.00	\$ 524,400.00	\$ 640,544.00
Commissioner of Finance.	12,155.00		12,155.00
Commissioner of Public Property and Licenses..	85,510.00	2,134,675.00	2,220,185.00
Commissioner of Streets and Highways	116,031.00		116,031.00
Commissioner of Water Works & Fire Protection	1,735,924.09	1,126,100.00	2,862,024.09
School Department	54,300.00	2,605,090.00	2,659,390.00
Miscellaneous		10,525.00	10,525.00
Total Valuation	<u>\$2,120,064.09</u>	<u>\$6,400,790.00</u>	<u>\$8,520,854.09</u>
Gross City Debt			<u>4,461,875.00</u>
Excess in Valuation of all City Property over the Gross Debt of City			<u>\$4,058,979.09</u>

**PERSONAL PROPERTY IN CHARGE OF COMMISSIONER
OF PUBLIC SAFETY**

Mayor:	
Furniture in office, etc.....	\$ 800.00
Health:	
Furniture, etc., in office.....	177.00
Bacteriological Laboratory	148.00
Milk and Vinegar Office.....	860.00
Horses	7,000.00
Wagons and Sleds.....	6,000.00
Harnesses	1,000.00
Shop	1,500.00
Law:	
Furniture in office, etc.....	500.00
Police:	
Furniture, etc., in offices.....	2,453.00
Equipment	1,375.00
Stable	7,331.00
Electrician's Department	24,800.00
State Aid:	
Furniture, etc., in office.....	200.00
Charity:	
Outdoor Relief	4,000.00
Hospital	27,000.00
	<u>\$ 85,144.00</u>

CHARITY DEPARTMENT

Real Estate			
	Buildings Value	Area	Land Value
Chelmsford St. Hospital Buildings....	\$211,300.00	45.73 acres	\$22,300.00
Isolation Hospital	270,000.00	59.39 "	3,000.00
Land Chelmsford St.		139,530 sq. ft.	2,800.00
Land Chelmsford St.		176,300 "	3,500.00
Land Chelmsford St.		10.30 acres	3,100.00
Land in Town of Chelmsford.....		28.08 "	8,400.00
	<u>\$481,300.00</u>		<u>\$43,100.00</u>
			\$524,400.00

Personal Property

Outdoor Relief	\$ 4,000.00
Hospital	27,000.00
	<u>\$31,000.00</u>

**PERSONAL PROPERTY IN CHARGE OF COMMISSIONER
OF FINANCE**

Auditor—Furniture in office, etc.....	\$ 1,305.00
Assessors— “ “ “	1,100.00
Treasurer— “ “ “	1,000.00
City Clerk— “ “ “	550.00
Elections— “ “ “	7,500.00
Registrars— “ “ “	85.00
Supply— “ “ “	575.00
	\$12,155.00

**PERSONAL PROPERTY IN CHARGE OF COMMISSIONER
OF PUBLIC PROPERTY AND LICENSES**

Building:

Shop and Storehouses	\$10,500.00
Machinery, tools, etc.	1,270.00
Hardware	140.00
Lumber	500.00
School furnishings	2,000.00
Election property	4,150.00
Coffins, stock and tools.....	250.00
Stable property	3,180.00
Masons' stock and tools.....	60.00
Pipers' stock	315.00
Painters' stock and tools and unclassified.....	1,100.00
Office property	1,000.00

Cemetery	16,000.00
License Commissioners	850.00

Park:

Furniture, etc., in office, stable and yard.....	8,200.00
Smoke Inspector	70.00
Moths	1,800.00

Messenger:

Furniture in charge	1,300.00
Boiler room	3,100.00
Weigher	275.00
Sealer	900.00
Wires	400.00

Schools:

Furniture, etc., in office.....	1,150.00
Horses, etc.	1,000.00
Equipment, High School	10,000.00
Equipment, Industrial School	16,000.00

\$85,510.00

PUBLIC PROPERTY AND LICENSES DEPARTMENT

Real Estate

	Value Bldg.	Area	Land Value	Total Value
City Hall	\$492,000.00			
Memorial Building, Merrimack St., Col. burn St., Moody St. and Worthen St.	240,000.00	61,280	\$ 245,100.00	\$ 977,100.00
Police Station, Market St.....	49,700.00			
City Scales	600.00			
Public Landing and Police Stable.....	3,000.00	16,345	73,550.00 }	
Land in rear Market St.....		4,537	3,450.00 }	133,600.00
Land in rear Market St.....		4,382	3,300.00 }	
Wooden Building (polling booth).....	350.00			
Wooden Building (Old Fire Station)...	850.00			
Land, Fletcher, Willie and Cross Sts...		5,150	2,050.00	3,250.00
Comfort Station, Paige St.....	30,000.00	area in street		30,000.00
Carriage Sheds	4,800.00			
2½ Story Brick Building, Office, Carpenter and Blacksmith Shop.....	9,600.00			
Sprinkler Sheds	6,000.00			
City Stables (brick).....	48,000.00			
Land, Fletcher, Broadway and Land-grange Sts.		72,500	25,400.00	93,800.00
Brick Stable	42,000.00			
Carriage Shed (brick and wood).....	3,600.00			
Shed (wood)	3,000.00			
2 Story Building (Sewer Dept.) wood..	3,000.00			
Land, Fletcher, Cross and Broadway..		80,980	28,350.00	119,200.00
Shed	600.00			

PUBLIC PROPERTY AND LICENSES DEPARTMENT, Real Estate—Continued

	Value Bldg.	Area	Land Value	Total Value
Carpenter and 3 Story Brick Building.	21,600.00			
2 Story Wooden Building, Carpenter Storage	7,200.00			
Auto and Carriage Sheds, brick and wood	9,600.00			
Sheds	250.00			
Rife Range, Dracut	19,200.00		2,700.00	21,900.00
Magazine Building rear of Chelmsford St.		1.65 sq. ft.	400.00	400.00
Memorial-Auditorium		76,789 "	49,350.00	49,350.00
Garage 2-24 E. Merrimack St.....	6,600.00	6,622 "	9,350.00	15,950.00
	\$1,001,550.00		\$443,000.00	\$1,444,550.00

DEPARTMENT OF PUBLIC PROPERTY—PARK DEPARTMENT

Real Estate					Total Value
	Valuation	Acre	Feet	Value Land	
Bath House	\$17,000.00		261,928	\$ 13,100.00	\$ 30,100.00
Belvidere Park			74,275	29,700.00	29,700.00
Chambers St. Playground ..			55,239	5,700.00	5,700.00
Fair Grds. Playground.....			381,367	19,550.00	19,550.00
Colonial Ave. Riverbank ...			152,400	leased	leased
Coburn Square			10,989	1,000.00	1,000.00
Fort Hill Park.....		34.40		154,800.00	154,800.00
Glacial Oval			690	100.00	100.00
Harris Oval			5,090	500.00	500.00
Hillside Park			2,669	250.00	250.00
Hovey Square			945	150.00	150.00
Hutchinson Square			1,416	150.00	150.00
Lenox Square (barn).....	850.00		18,195	2,200.00	3,050.00
Lincoln Square			600	150.00	150.00
Lucy Lareom Park			21,970	leased	leased
Mansur Square			1,743	175.00	175.00
Middlesex Square			1,514	200.00	200.00
Monument Square			3,928	23,550.00	23,550.00
Mt. Vernon Park.....			25,902	4,000.00	4,000.00
North Common		11.39		125,300.00	125,300.00
Parker Spaulding Park.....			2,215	200.00	200.00
Penniman Square			975	250.00	250.00
Princeton Square			1,210	150.00	150.00
Shedd Park				44,800.00	44,800.00
South Common		56.00	911,653	227,900.00	227,900.00
Tyler Park			78,919	8,000.00	8,000.00
Water Works Square.....			2,050	500.00	500.00
Varnum Ave. Riverbank ...			19,860	leased	leased
Varnum Park.....			5,882	5,900.00	5,900.00
N. E. cor. Mammoth Rd & Riverside St.....			7,420	2,250.00	2,250.00
S. W. cor. Mammoth Rd. & Varnum Ave.....			6,481	1,750.00	1,750.00
	<u>\$17,850.00</u>			<u>\$672,275.00</u>	<u>\$690,125.00</u>

**PERSONAL PROPERTY IN CHARGE OF COMMISSIONER
OF STREETS AND HIGHWAYS**

Streets:

Store room	\$ 4,070.00
Yard	14,340.00
Shop	2,000.00
Stone	6,780.00
Blacksmith Shop	890.00
Tool House	568.00
Dracut Ledge	14,700.00
Horses & Harnesses.....	21,788.00
Miscellaneous	2,200.00

Watering Streets:

Carts, etc.....	12,635.00
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Sewer:

Office	725.00
Miscellaneous	19,850.00

Lighting Streets	10,025.00
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Engineer:

Furniture in office, etc.....	2,560.00
Tools and materials.....	2,900.00

\$ 116,031.00

WATER WORKS DEPARTMENT

	Real Estate			Value Land	Total Value
	Value Bldgs.	Area	Right of way		
Terminal Chamber (brick) Conduit St..	\$ 4,400.00				\$ 4,400.00
2 Small Brick Buildings, manhole and blow-off, Conduit St.	1,100.00				1,100.00
Sarah Ave. and Moody St.....		28,072	sq. ft.	\$ 2,800.00	2,800.00
Brick Manhole Structure, White St....	1,100.00	5,833	"	300.00	1,400.00
Brick Manhole Structure, Moody St., Gershorn and Gardner Aves.....	2,200.00	17,252	"	2,600.00	4,800.00
Fels Park		27,163	"	550.00	550.00
Boulevard and Boulevard St.....		11	"	1,550.00	12,550.00
Inlet Chamber (brick) Varnum Ave...	11,000.00	15,540	acres	4,400.00	4,400.00
Pumping Station, West Sixth St.....	110,000.00				
Stable and Sheds	16,500.00				
Store House and Sheds, West Sixth St., Hampshire St. and Jewett St.....	2,200.00	51,101	sq. ft.	13,000.00	141,700.00
High Service Reservoir, Mt. Pleasant St.	16,500.00	54,730	"	1,100.00 }	18,250.00
In Town of Draut.....		32,470	"	650.00 }	
Pumping Station and Chinney, Plain and Chelmsford Sts.	3,300.00	1,684,930	"	25,250.00 }	33,000.00
Plain and Chelmsford Sts.....		115,640	"	600.00 }	
In Town of Chelmsford		1,531,109	"	3,850.00 }	
Low Service Reservoir (new)	82,500.00				
Low Service Reservoir	77,000.00				
Dwelling House	1,100.00				
Gate House, Beacon St.	11,000.00	651,600	"	32,600.00	204,200.00
Lower Pumping Station	27,500.00				

WATER WORKS DEPARTMENT, Real Estate—Continued

	Value Bldgs.	Area	Value Land	Total Value
Wooden Building, Boulevard				
Filter Basin (brick base and wood superstructure)	550.00	22.71 acres	9,100.00	37,150.00
Vacant Land between River and Var- num Ave.	8,800.00	(Balance of land gone to Bath House)		
Cushing Farm Buildings (sold since April 1, 1920)		101,882 sq. ft.	3,050.00	11,850.00
Upper Pumping Station (sold since April 1, 1920)				
Dwelling House (sold since April 1, 1920)				
Dwelling House (sold since April 1, 1920)	900.00	55.78 "	22,300.00	22,300.00
Purification Plant	125,000.00	34.71 "	13,900.00	138,900.00
	\$501,750.00		\$137,600.00	\$639,350.00

Personal Property

Pumps, Engines, Machinery, Pipes, Conduits, Mains
and other Personal Property..... \$1,602,276.67

FIRE DEPARTMENT**Personal Property**

	Valuation
Chief's Office.....	\$ 7,619.32
Repair Shop	579.00
Engine Co. No. 1, Gorham Street.....	8,767.13
“ No. 2, Branch Street.....	9,389.00
“ No. 3, Palmer Street.....	7,773.30
“ No. 4, High Street.....	5,172.50
“ No. 5, Mammoth Road.....	2,950.90
“ No. 6, Fletcher Street.....	6,592.60
Hose Co. No. 7, Central Street.....	2,566.95
“ No 8, Merrimack Street.....	2,000.85
“ No. 9, Lincoln Street.....	2,539.13
“ No. 10, Fourth Street.....	3,955.30
“ No. 11, Lawrence Street.....	1,966.60
“ No. 12, West Sixth Street.....	2,433.65
Hook and Ladder, No. 1, Lawrence Street.....	2,429.25
“ No. 2, Westford Street.....	3,517.91
“ No. 3, Palmer Street.....	5,169.55
“ No. 4, West Sixth Street.....	6,599.78
Protective No. 1, Warren Street.....	4,327.70
Fire Alarm Telegraph.....	47,327.00
Total Fire Dept. Personal.. ..	\$133,647.42

FIRE DEPARTMENT

Real Estate

	Value Bldgs.	Area	Value Land	Total Value
Engine House, Gorham St.....	\$ 31,000.00	5,292 feet	\$ 1,600.00	\$ 32,600.00
Engine House, Branch St.....	21,600.00	8,829 "	3,500.00	25,100.00
Central Fire Station, Palmer St.....	72,000.00	2,248 }	9,000.00 }	128,600.00
		7,326 }	47,600.00 }	
Engine House, High St.....	30,000.00	5,565 "	1,950.00	31,950.00
Engine " Mammoth Road	17,400.00	5,341 "	850.00	18,250.00
Engine " Fletcher St.	24,000.00	123,126 }	24,600.00 }	52,300.00
		18,985 }	3,700.00 }	
Engine " Central St.	12,600.00	3,500 "	2,100.00	14,700.00
Engine " Merrimack St.	27,600.00	3,060 "	11,300.00	38,900.00
Engine " Lincoln St.	7,200.00	1,930 "	150.00	7,350.00
Engine " Fourth St.	19,200.00	6,993 "	2,500.00	21,700.00
Engine " Lawrence St.	30,000.00	8,058 "	1,200.00	31,200.00
Engine " West Sixth St.....	45,600.00	9,390 "	650.00	46,250.00
Engine " Westford St.	21,600.00	4,610 "	1,400.00	23,000.00
Engine " Warren St.	13,200.00	1,645 "	1,650.00	14,850.00
	\$373,000.00		\$113,750.00	\$486,750.00

SCHOOL DEPARTMENT

Real Estate

	Bldgs. Value	Area	sq. ft.	Land Value	Total Value
				\$	\$
Land, Kirk and Anne Sts.....		72,140		72,135.00	72,135.00
High School, Kirk and Anne Sts.....	\$ 240,000.00	31,194	"	32,000.00	272,000.00
High School Annex, John & Paige Sts.	98,800.00	16,737	"	25,100.00	123,900.00
High School (overflow) Kirk St.....	12,000.00	22,816	"	18,000.00	30,000.00
Bartlett School (new) Wannalancit St.	175,000.00	68,418	"	10,250.00	185,250.00
Land, Clark St.		10,000	"	3,000.00	3,000.00
Butler School, Gorham St.	78,000.00	43,187	"	9,315.00	87,315.00
Colburn School, Lawrence St.	24,000.00	17,557	"	3,500.00	27,500.00
Edson School, Highland and South Sts.	24,000.00	Ld. taken with So. Common			24,000.00
Franklin School, Branch St.	18,000.00	20,011	sq. ft.	14,000.00	32,000.00
Green School, Merrimack St.	72,000.00	19,562	"	83,150.00	155,150.00
Greenhalge School, Ennell St.	150,000.00	100,000	"	15,000.00	165,000.00
Morey School, Pine St. (unfinished) ...	120,000.00	123,924	"	18,600.00	138,600.00
Lincoln School, Chelmsford St.	120,000.00	48,084	"	4,800.00	124,800.00
Mann School, Broadway (brick)	9,600.00				
Wooden Building, Broadway	9,600.00	15,632	"	11,700.00	30,900.00
Moody School (new) Rogers St.....	90,000.00	51,070	"	10,200.00	100,200.00
Pawtucket School, Mammoth Road....	140,000.00	36,160	"	5,800.00	145,800.00
Riverside School, Woburn St.	30,000.00	33,900	"	1,350.00	
		3,550	"	150.00	31,600.00
		11,724	"	100.00	
Varnum School, Myrtle St.	120,000.00	47,625	"	10,950.00	130,950.00
Washington School, Lang St.	108,000.00	72,240	"	2,890.00	110,890.00
Agawam School, Agawam St. (Primary)	9,600.00	13,184	"	1,600.00	11,200.00
Ames St. Primary	14,400.00	8,539	"	2,500.00	16,900.00
Billings St. Primary	18,000.00	20,000	"	1,000.00	19,000.00

SCHOOL DEPARTMENT, Real Estate—Continued

	Bldgs. Value	Area	Land Value	Total Value
Central St. Primary	\$12,000.00	9,694	2,900.00	14,900.00
Cabot St.	24,000.00	9,625	5,300.00	29,300.00
Carter St.	60,000.00	18,908	2,650.00	62,650.00
Charles St.	14,000.00	11,100	4,450.00	18,450.00
Colburn	26,000.00	9,857	3,450.00	29,450.00
Cross St.	26,000.00	8,048	2,000.00	28,000.00
Dover St.	10,000.00	17,927	4,500.00	14,500.00
Favor St.	26,500.00	8,500	5,100.00	31,600.00
Fayette St.	2,400.00	7,428	2,600.00	5,000.00
Grand St.	3,600.00	4,255	1,300.00	4,900.00
High St.	9,600.00	9,220	3,700.00	13,300.00
Howard St.	4,200.00	6,944	1,400.00	5,600.00
Kirk St.	14,400.00	6,120	6,100.00	20,500.00
Lakeview Av.	9,000.00	10,232	2,000.00	11,000.00
Lexington Av.	8,400.00	12,000	350.00	8,750.00
London St.	5,000.00	10,065	700.00	5,700.00
Lyon St.	21,600.00	10,730	2,700.00	24,300.00
House 16 Lyon and School Building...	3,000.00	6,000	1,000.00	4,000.00
Mammoth Road Kindergarten...	2,400.00	3,507	1,100.00	3,500.00
Middlesex Village Primary...	19,000.00	19,120	750.00	19,750.00
Moody Street	21,600.00	30,400	1,200.00	22,800.00
Morrill School, Common Street...	25,000.00	9,040	3,150.00	28,150.00
Laura E. Lee School...	24,500.00	16,239	2,450.00	26,950.00
Powell St.	7,800.00	11,367	1,350.00	9,150.00
Pond St.	8,500.00	9,880	3,950.00	12,450.00
Pine St.	21,600.00	26,603	3,200.00	24,800.00
Sycamore St.	14,500.00	19,046	550.00	15,050.00

MISCELLANEOUS REAL ESTATE

	Area		Bldg. Value
Tenth Street in Lowell.....	40,260	sq. ft.	\$ 800.00
Tenth Street in Dracut.....	175,985	"	3,500.00
Harris Land in Dracut.....	28	acres	600.00
Parker Land in Dracut.....	20	"	1,400.00
Hildreth Land in Dracut.....	17	"	500.00
Meadow Land in Dracut.....	5	"	275.00
Swan Land in Dracut.....	5	"	200.00
S. S. Rogers St.....	2.69	"	300.00
N. S. First Street.....	57,768	sq. ft.	1,500.00
W. S. Billerica Road.....	145,413	"	400.00
Spruce St.....	17,457	"	150.00
Clark Road	3	acres	900.00
			\$10,525.00

CEMETERIES DEPARTMENT

Various tools and supplies.....		\$ 8,027.73
Fencing:		
Edson Cemetery	\$7,355.00	
Gates	2,500.00	
Westlawn	3,000.00	
Old English	1,000.00	
School Street (stone).....	1,500.00	
Pawtucketville	170.00	15,525.00
Chapel:		
(Stone, slate roof).....		4,000.00
Settees		100.00
3 Chairs		10.00
1 Desk		5.00
1 Bible		3.00
4 Gas Heaters		25.00
1 Pedestal		28.00
Receiving Tomb		1,000.00
Office Building and Waiting Room (wooden)...		3,500.00
Heating Plant		200.00
6 Chairs		8.00
3 Desks		85.00
2 Tables		15.00
1 Book Case		25.00
1 Clock		5.00
1 Mirror		1.00
1 Safe (vault)		200.00
1 Typewriter		25.00
1 Filing Cabinet		175.00
Rest Shelter:		
Westlawn—(Cement and Tile).....		1,000.00
		\$33,962.73

**LOANS NEGOTIATED BY THE CITY SINCE 1900
AND HOW EXPENDED**

Year	Loans	Improvements	Current Expenses	Waterways
1900	\$288,500.00	\$191,000.00	\$ 22,500.00	\$ 75,000.00
1901	256,100.00	206,100.00	50,000.00	
1902	222,885.00	186,385.00	36,500.00	
1903	387,320.00	183,820.00	203,500.00	
1904	254,414.00	167,714.00	86,700.00	
1905	360,150.00	232,150.00	128,000.00	
1906	247,460.00	149,440.00	71,000.00	27,000.00
1907	365,500.00	229,500.00	136,000.00	
1908	304,413.00	189,413.00	115,000.00	
1909	172,900.00	172,900.00	none	
1910	241,000.00	161,000.00	20,000.00	60,000.00
1911	412,450.00	251,450.00	61,000.00	100,000.00
1912*	546,700.00	230,700.00	241,000.00*	75,000.00
1913	542,700.00	320,700.00	147,000.00	75,000.00
1914	343,500.00	235,500.00	none	90,000.00
1915	493,000.00	34,300.00	none	150,000.00
1916	647,100.00	592,100.00	none	55,000.00
1917	780,000.00	780,000.00	none†	
1918	177,000.00	147,000.00	30,000.00	
1919	833,000.00	753,000.00	none	80,000.00

*Temporary Loan Deficiencies of previous years—\$200,000.

†\$15,000.00—Spanish Influenza Epidemic; \$15,000.00 German War.

EXPENDITURE, TAX RATE, VALUATION FROM 1860

Year	Expenditures	Tax Rate	Total City Valuation
1860	\$ 267,192.07	\$ 8.40	\$22,125,176.00
1865	756,342.81	14.60	21,076,360.00
1870	778,636.03	13.90	25,972,488.00
1875	1,162,922.95	16.20	38,690,495.00
1880	1,398,683.48	16.20	41,102,016.00
1885	1,833,483.69	16.20	51,351,780.00
1890	3,613,584.04	16.00	62,353,612.00
1895	2,903,410.60	18.00	68,885,732.00
1900	2,353,844.41	18.80	71,529,515.00
1905	2,738,502.84	20.20	71,645,718.00
1906	2,795,000.75	19.60	74,945,640.00
1907	2,718,874.34	19.40	76,079,750.00
1908	3,046,987.96	20.40	77,855,891.85
1909	2,791,607.95	19.60	79,695,960.00
1910	2,887,399.24	19.60	80,392,890.00
1911	2,873,195.26	18.90	82,772,900.00
1912	2,847,482.13	19.00	85,384,085.00
1913	3,112,853.71	19.40	87,872,600.00
1914	3,093,197.15	21.90	90,039,890.00
1915	3,207,407.84	20.80	82,954,197.00
1916	3,443,043.82	21.20	94,503,423.00
1917	3,835,043.80	23.40	90,820,901.50
1918	4,026,944.67	23.80	98,774,850.00
1919	4,462,739.28	26.00	107,269,813.00

DEBT MATURING IN 1920

General City Debt.

Department	Date of Loan	Rate	Amount of Loan	Amount Maturing
Paving	May 1, 1910.....	4	\$ 68,000.00	\$ 6,800.00
Sewer Construction.....	May 1, 1910.....	4	50,000.00	5,000.00
Bridge Improvements.....	Sept. 1, 1910.....	4	40,400.00	4,040.00
Police and Fire Departments.....	December 1, 1910.....	4	2,600.00	260.00
Department Deficits.....	December 1, 1910.....	4	20,000.00	2,000.00
Macadamizing	April 1, 1915.....	4	50,000.00	10,000.00
Sidewalks	July 1, 1918.....	4 1/2	5,000.00	2,500.00

Water Works Debt

Original Construction and Renewal Bonds.....	November 1, 1890.....	4	\$1,000,000.00	\$1,000,000.00
New Pump and Filtration Plant.....	December 1, 1910.....	4	60,000.00	6,000.00
Filtration Plant.....	April 1, 1915.....	4	5,000.00	1,000.00

HIGH STREET CHURCH CLOCK

The clock was built in 1861 under the direction of Mr. George Hedrick. It was to be paid for by popular subscription, but after some time Mr. Hedrick was obliged to make the final payments and it became his property. In 1877 the City Government, by resolution, purchased the clock of Mr. Hedrick. The terms of purchase required the City to keep it in repair at the High Street Church.

COST OF CITY HALL AND MEMORIAL BUILDING

1889-1895—Cost of City Hall.....	\$382,317.48
1889-1895—Cost of Memorial Building.....	175,928.45
Land and Curbing	17,219.43
Total	<u>\$575,465.36</u>

PAYMENTS MADE TO SINKING FUNDS IN 1919

	Amount	Fund
City Hall and Memorial Buildings, due 1920	\$ 7,500.00	\$ 450,000.00
High School, due 1921.....	3,000.00	150,000.00
New School Houses, due 1926.....	4,000.00	200,000.00
Water Loans, due 1920.....	16,000.00	1,000,000.00
	<u>\$30,500.00</u>	<u>\$1,800,000.00</u>

PROPERTY EXEMPT FROM TAXATION

	Personal Valuation	Real Estate Valuation	Totals
Literary Institutions	\$ 140,846.90	\$ 466,895.00	\$ 697,641.90
Temperance Institutions....	3,365.85	16,350.00	19,715.85
Benevolent Institutions	35,423.62	97,750.00	133,173.62
Charitable Institutions	873,222.67	487,440.00	1,360,662.77
Scientific Institutions	406,420.29	486,650.00	893,070.29
Houses of Religious Worship		2,322,750.00	2,322,750.00
	<u>\$1,459,279.43</u>	<u>\$3,877,835.00</u>	<u>\$5,327,114.43</u>

The total real estate area exempt, 115,806.1000 acres.

Jonathan Tyler Worthy Poor Trust Fund

Deposited with the Washington Inst. for Savings, Book No. 23549.

Amount on deposit, Jan. 1, 1918..... \$10,000.00

Resolutions, numbered 14 and 74, passed by the City Council, May, 1878: "That the City of Lowell be appointed trustee of the sum of \$10,000.00, and that the City Treasurer is authorized to pay to the Ministry-at-Large the interest of said sum at the rate of 6 per cent. forever. Said sum to be used for the benefit of the worthy poor of the City. Said Ministry shall make an annual report of their dispensing said money to the City Council." This fund was restored in 1914, and City is paying 4 per cent. only.

Thomas Nesmith Fund

\$25,000.00 Annual Interest, \$1,500.00

Resolution, numbered 57, passed by the City Council, November, 1870: "That the sum of \$25,000.00 be accepted by the City and that the interest, at the rate of 6 per cent., be paid to the trustees, and that they in turn pay to the Ministry-at-Large or to like people, as they may decide. Said sum to be used for people in temporary need of charity without distinction of race, color or religion. Trustees: A. K. Chadwick, A. G. Cumnock, Thos. Nesmith, G. R. Chandler, Treasurer. In case of a vacancy, the remaining trustees shall report to the Justice of the Court, who shall appoint a successor to fill said vacancy." Not a trust fund.

Carney Medal Fund

Received of James G. Carney, in 1858 and 1859, the amount of \$200, which is to remain a perpetual debt of the City forever; the interest to be applied in payment for the "Carney Medals" to the departments of the High School (annually).

For the information of the citizens of Lowell the Auditor respectfully refers them to the "Annual Report of the School Committee," for the year 1859, where all the correspondence between the donor and the recipient may be found.

Thomas Nesmith Fund

\$1,000.00 Annual Interest, \$60.00

Resolution, numbered 54, passed by the City Council, April, 1870: "That the City of Lowell be appointed trustee of the sum of \$1,000.00, and the City Treasurer is authorized to pay to the High Street Church the interest of said sum at the rate of 6 per cent. forever. Said sum to be used by the Pastor and Deacons of said Church to sustain the Sunday School and its library for the moral and religious instruction of the children." Not a trust fund.

NEW HIGH SCHOOL ACTS 1915

		CR.
1915	November 1, Loan.....	\$125,000.00
1916	February 1, Loan	100,000.00
1917	March 1, Loan	75,000.00
	Sale Buildings, Receipts.....	4,542.50
		\$304,542.50
		DR.
1915	Expenses	\$ 11,002.44
1916	Expenses	199,676.07
1917	Expenses	16,936.16
1918	Expenses	49,014.43
1919	Expenses	2,341.35
		\$278,970.45
Balance January 1, 1920.....		
		\$ 25,572.05

CLASSIFICATION OF EXPENSES

Paid for		
	Land	\$181,414.16
	Advertising	203.52
	Auctioneer	338.85
	Engineering	461.60
	Titles and Recording.....	1,038.95
	Labor and Services.....	3,421.79
	Architects	14,857.12
	Steel	73,016.97
	Teaming, Hardware, etc.....	3,524.93
	All Other Expenses.....	692.56
Total		\$278,970.45

ERRATUM

At the foot of page 142 the following should appear:

Personal Property

Furniture in Schools, etc. \$54,300.00
Determined on factor basis of a certain valuation per room

INDEX

	PAGE
Auditor's Report by Departments.....	51-109
Auditor's Balance Sheet.....	9
Auditor's Debt Statement.....	10--11-12
Cemeteries—Trust Funds	111-124-125-126-127
City Debt	129
City Hall and Memorial Building.....	116
Debt maturing 1920.....	145
Expenditures—New High School.....	148
Financial Statement	42-49
High Street Church Clock.....	146
Indebtedness	10-11-12
Loans	12
Property Exempt from Taxation.....	146
Property Owned by City—Valuation.....	129-143
Receipts and Payments—Classified.....	13-41
Sinking Funds 110-111-112-113-114-115-116-117- 118-119-120-121-146	
Tax Rates	144
Total Valuation	129
Treasurer's Report	123-124-125-126-127
Trust Funds, etc.	121-122-123-147

By Accounts

Acquiring Land, Constructing New High School.....	105
Acquiring Land and Constructing Schools.....	105
Assessors	53
Assessor's Tax Book	58
Auditor	52
Auditing City Books	96
Band Concerts	82
Bridge Construction	103
Cemeteries	89
Charity Department	74-75
Charity Department—Dependent Mothers	75
City Clerk	55
City Debt	91
City Hall	57
City Hall Boilers	65
Claims	96
Comfort Station	69
Commissioners	52

	Page
Construction and Extension First Street.....	103
Elections and Registration	56
Engineering	56
Fire	61
Fish and Game Wardens	64
Fourth of July	82
General Expense	97
Health	67
Highways	71
Inspection of Buildings	62
" " Wires	63
" " Milk and Vinegar	68
" " Animals	68
Inspection School Children	68
Insurance	57
Interest	91
Isolation Hospital	69-99-100
Labor Day	82
Law ..	54
Library	85
License Commission	54
Lowell Memorial Auditorium ..	109
Macadamizing	102
Mayor	52
Memorial Day	83
Messenger	55
Moths	64
Municipal Purposes	109
New Sidewalks	103
Parks	82
Paving	102
Purchasing Agent	57
Police	60
Pound Keeper	64
Public Baths and Comfort Station.....	100
Registrar of Labor	58
Revision of Ordinance	96
Rifle Range	62
Schools	79
Sealer	63
Sewer Construction	99
Sewer Maintenance	69
Sinking Funds	91
Smith Hughes Fund	80
Smoke	68
Soldiers' Benefits	77
Soldiers' Exemption	77
Soldiers' Graves	77
Streets	71
Street Lighting	71
Street Watering	72
Taxes—County	93

	PAGE.
Taxes—Grade Crossings	93
“ Hales Brook Improvement	94
“ Highways	94
“ Liquor Licenses	93
“ Levy	6-7-8
“ National Bank	93
“ Special Tax Army and Navy.....	94
“ State	93
Textile School	80
Treasurer	53
Veteran Firemen's Association	83
Waterways	65
Water Works	87
“ “ Purifying and Constructing Water System.....	107
“ “ Purchase Land	107
“ “ Additions to Plant No. 2.....	107
Weigher	65
Widening School and Mammoth Road.....	102
Workmen's Compensation Act	96

Eighth Annual Report
OF THE
COMMISSIONER
OF
WATER WORKS
OF THE
CITY OF LOWELL, MASS.

To the Municipal Council, for the year ending
Dec. 31, 1919, and being the Forty-Seventh
Annual Report of the Water
Works Department.



Including Reports of the Superintendent,
City Engineer and Registrar

1919

The annual report of the operation of the Water Works
Department of the City of Lowell for 1919 by the

Superintendent, ROBERT GARDNER,
Engineer, STEPHEN KEARNEY,
Registrar, J. W. CRAWFORD,

to John F. Salmon, Commissioner Water Works and Fire
Protection, Lowell, Mass.

The following tables will show the financial operation
of the Water Works Department for the year 1919:

J. W. CRAWFORD,

Registrar.

Jan. 1, 1920.

LOWELL WATER WORKS

CONSOLIDATED STATEMENT, 1919

Balance, Jan. 1, 1919 W. Wks.		Operation and repairs	\$204,139.81
App. Dept. equipment, loans	\$80,000.00	Interest	55,926.25
Bal. for land loans	3,785.51	Payments on loans	47,000.00
Received from Water Meter rates	274,339.65	Payments to sinking fund	16,000.00
Received from Water fixture rates	13,198.96	Payments for W. W. Construction Acct.	26,650.82
Received from transfers	11,489.49	Payments for Dept. Equipment Acct.	27,798.54
Received from labor and material	29,311.03	Payments for Land Acct.	1.75
Received from tax levy	16,000.00	Payments for Refunds	333.80
O D Dec. 31st, W. Wks. Acct.	13,005.40	Payments for Unclassified Ex.	7,293.85
		Bal. Dec. 31, 1919 W. Wk. Acct.:	
		Dept. Equipment	\$52,201.46
		Purchase land	3,783.76
			\$441,130.04

PRINCIPAL AND INTEREST. LOWELL WATER WORKS, 1919.

	Amount, Jan. 1, 1919	Annual Payment	Interest 1919	Amount Jan. 1, 1920	Amount Original loan	Rate Per Cent	Interest Payable
Bonds.....	1890						
	\$1,000,000.00		\$40,000.00	\$1,000,000.00	\$1,000,000.00	4	May
A. C. Pump.....	1910						
	12,000.00	6,000.00	480.00	6,000.00	60,000.00	4	Nov
P. S. Reservoir and Mains.....	1911						
	30,000.00	10,000.00	1,200.00	20,000.00	100,000.00	4	June Dec.
P. S. Reservoir and Mains.....	1912						
	52,500.00	3,750.00	2,100.00	48,750.00	75,000.00	4	Feb. Aug.
P. S. Reservoir and Mains.....	1913						
	56,250.00	3,750.00	2,531.25	52,500.00	75,000.00	4½	Mar. Sept.
Land.....	1914						
	13,000.00	500.00	520.00	12,500.00	15,000.00	4	Feb. Aug.
Purification Plant.....	1915						
	189,000.00	12,000.00	7,320.00	177,000.00	225,000.00	4	Apr. Oct.
Ext. Mains Dept. Equipment.....	1916						
	33,000.00	11,000.00	1,100.00	22,000.00	55,000.00	4	May Nov.
Ext. Mains Dept. Equipment.....	1919						
			675.00	30,000.00	30,000.00	4½	Mar. Sept.
Engine.....	1919						
				50,000.00	50,000.00	4½	Sept. Mar.
Total.....	\$1,385,750.00	\$47,000.00	\$55,926.25	\$1,418,750.00			

Cost of Works.....	\$3,945,432.03
Amount of Debt.....	1,418,750.00
Amount of Sinking Fund.....	968,360.54

LOWELL WATER WORKS

<i>Charges and Receipts, 1919</i>			<i>Expended, 1919</i>		
	Stock	Labor	Water	Total	
Jan.-Mar.	\$2,212.62	\$ 830.31	\$49,849.59	\$52,892.52	Administration Expense:
Apr.-June	3,458.10	5,583.40	65,256.72	74,298.22	Payroll
May			13,656.16	13,656.16	Supplies
July-Sept.	7,715.53	3,117.17	114,396.92	125,229.62	General Expense:
Oct.-Dec.	4,741.55	1,917.77	66,408.27	73,067.59	Payroll
Total					Supplies
charges	\$18,127.80	\$11,448.65	\$309,567.66	\$339,144.11	Pumping Station Expense:
Unpaid from 1918 Acct.				3,293.23	Payroll
					Supplies
Less abatements			\$2,678.62	\$342,437.34	Meter Expense:
Discounts			19,178.87	21,857.49	Payroll
					Supplies
Balance uncollected 1919 Acct.				\$320,579.85	Construction Expense:
				3,730.21	Payroll
					Supplies
					Interest payments
					Principle payments
Add Transfers from Depts.				\$316,849.64	
				11,489.49	
Total Receipts				\$328,339.13	Refunds
					Total Expended

FINANCIAL STATEMENT
LOWELL WATER WORKS, 1919

Maintenance

Labor:

Office and officials	\$19,052.72	
Pumping stations	38,892.92	
Filter	12,202.47	
General maintenance	65,145.23	
		\$135,293.34

Material:

Water works supplies	\$22,351.47	
Pumping station supplies	6,893.03	
Coal	31,488.58	
Stable	6,888.25	
Filter	1,225.14	
		\$68,846.47

\$204,139.81

Construction

Labor	\$14,848.04	
Material	11,802.78	
		\$26,650.82

FINANCIAL STATEMENT
LOWELL WATER WORKS, 1919

Appropriation for Department Equipment

Loan	\$30,000.00	
Loan	50,000.00	
		\$80,000.00
Expended for labor	\$14,704.76	
Expended for material	13,093.78	
		\$27,798.54
Balance to 1920		\$52,201.46

Appropriation for Purchase of Land

Balance Jan. 1, 1919	\$3,785.51	
Expended	1.75	
Balance to 1920		\$3,783.76

NEW HYDRANTS, 1919

Aiken Avenue	Ludlow Hydrant
Arcadia Avenue	Chapman Hydrant
Bodwell Avenue	Ludlow Hydrant
Cascade Avenue	Ludlow Hydrant
Christian Street	Ludlow Hydrant
Delard Street	Ludlow Hydrant
Lennon Avenue	Corey Hydrant
Lupine Road	Ludlow Hydrant
Phoebe Avenue	Ludlow Hydrant
Staples Street	Chapman Hydrant

10 New Hydrants set 1919

HYDRANTS CHANGED, 1919

Location	Taken Out	Set
Beacon, cor. Sanborn	Flush	Ludlow
Cady St., opp No. 18	"	"
Charles St., near Central	Corey	"
Clark Rd., end of line	Ludlow	"
Dutton St., at No. 600	Ludlow	Chapman
French St., near No. 70	Chapman	"
Mt. Pleasant, cor. Grandview	Michigan	Boston Post
Olive St.	Corey	" "
Paige St., cor. John	Chapman	Ludlow
Parkview Ave.	"	"
Preston St.	Boston Machine	"
Salem St., opp. No. 158	Flush	"
Saunders St., at Foundry ...	Chapman	"
Sherman St. cor. Pleasant ..	"	"
Varnum Ave., opp No. 981 ..	Boston Post ..	"
Whitney Ave.	Chapman	"

16 Hydrants changed 1919

NEW SERVICES, 1919

No.	KIND	FEET
179	 $\frac{3}{4}$ in. Galvanized Iron	6,741.6
31	 1 in. Galvanized Iron	1,845.10
1	 $1\frac{1}{2}$ in. Galvanized Iron	12.0
8	 2 in. Galvanized Iron	447.2
1	 3 in. Wrought Iron	36.0
2	 6 in. Cast Iron	109.0
1	 8 in. Cast Iron	40.0
223		9,231.6
Total previously laid		560,098 feet
Total now laid		569,329 feet
Total number services laid		15,200
Total number cut off at main		1,095
Total number reconnected		94
Total number now in use		14,199
Average length of service		40.96 feet

SERVICES CHANGED, 1919

No.	Kind	CHANGED TO				
		Gal. Iron $\frac{3}{4}$ in.	Gal. Iron 1 in.	Gal. Iron $1\frac{1}{2}$ in.	Gal. Iron 2 in.	Gal. Iron Total Ft. In.
9	$\frac{5}{8}$ in. Lead	139				139
1	$\frac{5}{8}$ in. Lead		21-6			21-6
22	$\frac{3}{4}$ in. Lead	436-5				436-5
1	1 in. Lead	21-6				21-6
7	1 in. Lead		71-8			71-8
1	1 in. Lead			6		6
84	$\frac{3}{4}$ in. T. L. I.	2,031-6				2,031-6
6	$\frac{3}{4}$ in. T. L. I.		236-6			236-6
1	1 in. T. L. I.	8-6				8-6
10	1 in. T. L. I.		249-8			249-8
11	$\frac{3}{4}$ in. L. L. I.	224-1				224-1
1	$\frac{3}{4}$ in L. L. I.		109-6			109-6
1	1 in Steal		9-8			9-8
36	$\frac{3}{4}$ in. Iron	919-2				919-2
2	$\frac{3}{4}$ in. Iron		57-6			57-6
6	1 in. Iron	160-4				160-4
13	1 in. Iron		277-5			277-5
1	1 in. Iron			7-6		7-6
2	$1\frac{1}{8}$ in. Iron		76			76
1	2 in. Iron		14-6			14-6
1	2 in. Iron				58-6	58-6
217		3,940-6	1,123-11	13-6	58-6	5,136-5

METERS RUNNING JANUARY 1, 1920

Sizes in Inches	$\frac{5}{8}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{2}$ "	2"	3"	4"	6"	8"	Total
Columbiana.....	71	1								72
Crown.....	3218	1653	335	26	46	7	7	5		5,292
Desper.....	14	4	3							21
Duplex.....	1		1							2
Empire.....	271	45	10	5	7	5	1			344
Empire Compound.....						1	1			2
Gem.....					5	1	4			10
Gem Empire.....							3			3
Hersey.....	2055	268	57	22	17	2	2	1	2	2,426
Hersey Detector.....						1	8	27	4	40
Keystone.....	63				1					64
King.....	80	3								83
Lambert.....	814	90	19		2					925
Nash.....	570	118	56		2					746
Niagara.....	1									1
Thomson.....	6	14	1							21
Torrent.....						1	2			3
Trident.....	572	34	1	1						608
Trident Protectus.....									1	1
Union.....	27	7								34
Watch Dog.....	698	39	26	7	11		1			782
Worthington.....	36	1	25	27	26	6	2			123
Worthington Disc.....	758	35	22	11	12	4				842
Total.....	9250	2312	556	99	129	28	31	34	6	12,445

HYDRANTS, JANUARY 1, 1920.

Kind	Flush	2 Noz.	3 Noz.	4 Noz.	Total
Boston Machine.....			166		166
Chapman.....		3	117	51	171
Coffin.....			1		1
Corey.....			61		61
Eddy.....			32	1	33
Fairbanks.....			19		19
Flush.....	219				219
Glanmorgan.....			1		1
Holyoke.....			1		1
Kennedy.....			1		1
Lowrey.....7					7
Ludlow.....		29	643	14	686
Michigan.....			4		4
O'Brien.....			1		1
A. P. Smith.....			48		48
Perkins.....				1	1
Pratt & Cady.....			26		26
Walker.....			17		17
Totals.....7	219	32	1,138	67	1,463

LOW SERVICE—WATER PIPE LAID DURING THE YEAR 1919.

Street	Location	Length of Pipe in Feet				
		4"	6"	8"	10"	12"
Aberdeen St.....	From end near Methuen St., southerly...		242.5			
Aiken Ave.....	From end near Barker Ave., northerly...		255.			
Arcadia Ave.....	From Princeton St., northerly.....		328.			
Bodwell Ave.....	From Gershom Ave., easterly.....			203.5		
Broadway.....	From Wilder St., westerly.....					24.
Bunker Hill St....	From West Sixth St., southerly.....			214.		
Cascade Ave.....	From Princeton St., northerly.....		347.5			
Christian St.....	From old end southerly at No. 352.....		14.5			
Delard St.....	From Riverside Ave., northerly.....		127.			
Fairgrove Ave.....	From old end, northerly.....		72.			
Foster St.....	From near Princeton St., northerly.....		396.	68.		
Lennon Ave.....	From Woburn St., westerly.....		408.5			
Lupine Rd.....	From old end, northerly.....		387.			
Middlesex St.....	For Fire Service to B. & M., opp. Wood St.			31.		
Phebe Ave.....	From old end, northerly.....			142.5		
Preston St.....	From old end westerly to Wellesley Ave..		29.			
Riverby St.....	From old end southerly.....		67.			
Riverside Ave.....	From West St., to Delard.....		254.			
Sayles St.....	From old end at No. 101, northerly.....		98.5			
Staples St.....	From Westford St., southerly.....			405.		
Washer St.....	From old end, northerly.....		6.5			
Washer St.....	Fire Service to Mill on south side.....		88.3			
Wellsley Ave.....	From Preston St., northerly.....		66.			
Western Ave.....	Fire service to Mohair Plush Co.....		13.			
			3200.3	1064.0		24.

LOW SERVICE—WATER PIPE REMOVED DURING THE YEAR 1919.

Street	Location	Length of Pipe	
			6"
Edwards St.....	From a point 307 north of Middlesex St., northerly....	225.	
Middlesex Park...	Off of North end.....	48.	

LOW SERVICE—SMALL SIZE DISTRIBUTION PIPE LAID DURING THE YEAR 1919.

Street	Location	Length of Pipe	
		1"	2"
Burrell Pl.....	From Lilley Ave., northerly.....	118.	
Magnolia St.....	From old end southerly to Bath House.....		925.

HIGH SERVICE—WATER PIPE LAID DURING THE YEAR 1919.

Street	Location	Length of Pipe in Feet		
		4"	6"	8"
Clark Rd.....	From old end, southerly to No. 268.....		169.	
Harland Ave.....	From old end, northerly.....			101.
			169.	101.

HIGH SERVICE—LIST OF STOP GATES SET DURING THE YEAR 1919.

Street	Location	Size	
		4"	6"
Beacon St.....	90 ft. south of south line Sanborn St., 12½ ft. east of west line Beacon St. on Hydrant.....		1
			1

LOW SERVICE—LIST OF STOP GATES SET DURING THE YEAR 1919.

Street	Location	Size					
		4"	6"	8"	10"	12"	16"
*Arcadia Ave....	11½ ft. south of north line Princeton St., 12 ft. east of west line Arcadia Ave.....		1				
Bodwell Ave..	2½ ft. east of east line Gershom Ave., 12 ft. south of north line Bodwell Ave.....			1			
Broadway.....	1 ft. east of east line Wilder St., 15½ ft. south of north line Broadway.....						1
Broadway.....	1 ft. west of west line Wilder St., 12½ ft south of north line Broadway.....					1	
*Bunker Hill....	12 ft. north of south line West Sixth St., 12 ft. west of east line Bunker Hill St.....			1			
*Cascade Ave....	11½ ft. south of north line Princeton St., 12 ft. east of west line Cascade St.....		1				
Delard St.....	On north line Riverside Ave., 12 ft. east of west line Delard St.....		1				
Gorham St.....	98 ft. south of south line Suttle St., 21 ft. east of west line Gorham St.....		1				
*Lennon Ave....	18½ ft. east of west line Woburn St., 12 ft. south of north line Lennon Ave.....		1				
Middlesex St...	31 ft. east of west line Wood St., 5 ft. south of north line Middlesex St.....			1			
Phebe Ave.....	On north line Sarah Ave., 12½ ft. west of east line Phebe St.....		1				
*Riverside Ave..	13½ ft. west of east line West St., 5 ft. south of north line Riverside Ave.....		1				
Stackpole St....	52 ft east of east line Fayette St., 13 ft. south of north line Stackpole St.....		1				
Stackpole St.....	82 ft. east of east line Fayette St., 13 ft. south of north line Stackpole St.....		1				
Staples St.....	On south line Westford St., 12 ft. east of west line Staples St.....			1			
Washer St.....	7½ ft. south of south line Mill Building, 5 ft. west of east line Washer St.....		1				
Washer St.....	7½ ft. south of south line Mill Building, 59 ft. east of east line Washer St.....		1				
*Western Ave....	8 ft. east of Burnham and Davis Shed 11½ ft. north of south line Western Ave.....		1				
Dutton St.....	South side on Hydrant, opposite No. 600.....		1				
Salem St.....	North side on Hydrant, opposite No. 158.....		1				
Sherman St....	North side on Hydrant, at west side Pleasant St..		1				

*Denotes Smith Gates

LOW SERVICE—LIST OF HYDRANTS SET DURING THE YEAR 1919.

Street	Kind	Location
Aberdeen St.....	Ludlow	On west side opposite No. 83, moved from opposite No. 108...
Aiken Ave.....	Ludlow	On east side at end, opposite No. 338.....
Arcadia Ave.....	Chapman	On west side at end, opposite No. 31.....
Bodwell Ave....	Ludlow	On north side at end, opposite No. 32.....
Cascade Ave....	Ludlow	On west side at end, opposite No. 31.....
Christian St.....	Ludlow	On west side at end, opposite No. 352.....
Concord St.....	Ludlow	On west side 95 ft. south of Andover St. was moved from point 29 ft. north.....
Delard St.....	Ludlow	On west side 20 ft. north of Riverside Ave.....
Lennon Ave.....	Corey	On north side at end
Lupine Rd.....	Ludlow	On west side at end, opposite No. 71.
Phebe Ave.....	Ludlow	On east side at end, opposite No. 48.
Staples St.....	Chapman	On west side at end, opposite No. 37

HIGH SERVICE—LIST OF HYDRANTS SET DURING THE YEAR 1919.

Street	Kind	Location
Clark Rd.....	Ludlow	On west side at end opposite No. 268, moved from opposite No. 241
Harland Ave....	Ludlow	On west side at end, moved opposite No. 17.

LOW SERVICE—LIST OF HYDRANTS DIS- CONTINUED DURING THE YEAR 1919.

Street	Kind	Location
Edwards St.....	Ludlow	On east side opposite No. 53.

SUMMARY

Low Service water pipe laid in 1919	4,288.3 ft.
Low Service water pipe laid previous to 1919	794,923.5 ft.
	799,211.8 ft.
Low Service water pipe removed in 1919	273. ft.
Total Low Service water pipe in use Jan. 1,	
1920	798,938.8 ft.
High Service water pipe laid in 1919	270. ft.
High Service water pipe laid previous to 1919	52,340. ft.
	52,610. ft.
High Service water pipe removed 1919	000 ft.
Total High Service water pipe in use Jan. 1,	
1920	52,610. ft.
Total High and Low Service Jan. 1, 1920.....	851,548.8 ft.
Total pipe, in use Jan. 1, 1920, in miles	161.27

LOW SERVICE		HIGH SERVICE	
4"	34,197 feet	4"	1.507 feet
6"	450,744.3 "	6"	30,644.5 "
8"	162,784.3 "	8"	4,758.5 "
10"	31,308.5 "	10"	2,931 "
12"	71,252.8 "	12"	7,885 "
16"	26,235.9 "	16"	4,884 "
20"	8,659 "		
24"	9,194 "		
30"	4,563 "		

Total	798,938.8 "	52,610.0 "
Low Service Hydrants set in 1919	10	
High Service Hydrants set in 1919	0	
Low Service Hydrants removed in 1919	1	
High Service Hydrants removed in 1919	0	

Size

	4 in.	6 in.	8 in.	12 in.	16 in.	
Low Service Stop Gates set in 1919	0	15	4	1	1	=21
Low Service Stop Gates removed in 1919.						= 0
High Service Stop Gates set in 1919....		1				= 1
High Service Stop Gates removed in 1919		0				= 0

METERS

Meters running January 1, 1919	12,061
New Meters set 1919	388
Meters discontinued	2
Meters condemned and not replaced	2
Total increase for year	384
Meters running January 1, 1920	12,445
Meters condemned and replaced	12
Private meters sold	19
Private meters repaired	7
Meters changed	13
Meters stopped	690
Meters frozen and repaired	125
Meters stored at shop	53
Meters leaking	54
Meters out for test	15
Meters out—hands gone	19
Meters out—put in stock	17
Meters discontinued	2
Temporary meters set	6

Respectfully submitted,

ROBERT GARDNER,

Superintendent.

Report of the City Engineer

OFFICE OF THE CITY ENGINEER,

LOWELL, MASS., January 1, 1920.

*To the Commissioner of Water Works and Fire
Protection:*

DEAR SIR:—

I have the honor to submit the forty-seventh annual report for the year ending December 31, 1919 :

PUMPAGE

Total Net Pumpage for 1919	2,439,555,402	gallons
Total Net Pumpage for 1918	2,761,748,745	gallons
Decrease in 1919	325,193,343	gallons

CONSUMPTION

Consumption in 1919	2,449,778,387	gallons
Consumption in 1918	2,753,448,760	gallons
Decrease in 1919	303,670,373	gallons

The maximum pumpage for any one day was on Tuesday, June 24th, viz.:

At West Sixth Street Station	7,516,147	gallons
At Cook Wells Station	1,844,800	gallons

Total	9,360,947	gallons
-------------	-----------	---------

The maximum pumpage for one week was of the week of January 5th to January 11th, viz.:

At West Sixth Street Station	35,129,644 gallons
At Cook Wells Station	19,458,688 gallons

Total	54,588,332 gallons
High Service Pumpage for 1919	167,502,188 gallons
High Service Pumpage for 1918	140,449,358 gallons
Increase in 1919	27,052,830 gallons

Cost of Low Service Pumpage in 1919	\$29.86 per million gals.
Cost of Low Service Pumpage in 1918	\$30.91 per million gals.
Decrease in 1919	\$ 1.05 per million gals.

Cost of High Service Pumpage in 1919	\$27.23 per million gals.
Cost of High Service Pumpage in 1918	\$23.59 per million gals.
Decrease in 1919	\$ 1.36 per million gals.

Cost of Low Service Pumpage, exclusive of Cook Wells, in 1919	\$28.76 per million gals.
Total Cost of High Service Pumpage (Cost of Low Service plus Cost of High Service, exclusive of Cook Wells), in 1919	\$56.29 per million gals.

Total Cost of High Service Pumpage (Cost of Low Service plus Cost of High Service, exclusive of Cook Wells), in 1918	\$57.84 per million gals.
Decrease in 1919	\$ 1.55 per million gals.

TABLE SHOWING QUANTITY PUMPED EACH MONTH AT THE SEVERAL STATIONS DURING THE YEAR 1919.

PUMPING STATIONS											
Mos.	Wells					West Sixth Street				Grand Totals	Net Totals
	Pawtucket Boulevard			Net Totals	Worthington Low Duty	Allis-Chalmers	Total Low Service	High Service			
	Cook Wells	Totals									
		Holly Pump	Kerr Turbine								
Jan....	69,097,344	158,512,500	155,592,597	383,202,441	69,097,344	152,674,125	152,674,125	11,516,834	547,393,400	221,771,469	
Feb....	42,513,984	145,566,000	143,562,226	331,642,210	42,513,984	151,446,060	151,446,060	10,985,814	494,074,184	193,960,044	
Mar....	35,653,312	163,767,000	161,634,133	361,054,445	35,653,312	169,386,790	169,386,790	12,602,982	548,044,217	205,040,102	
April ..	24,533,888	168,024,000	166,044,372	358,602,260	24,533,888	176,413,240	176,413,240	12,062,680	547,078,180	200,947,128	
May....	14,721,280	197,088,000	194,817,560	406,626,840	14,721,280	200,897,256	200,897,256	12,546,870	620,070,006	215,618,536	
June....	17,198,464	205,690,500	203,592,910	426,481,874	17,198,464	213,790,340	213,790,340	13,598,102	653,870,316	230,988,804	
July....	13,507,520	213,339,000	210,948,579	437,795,099	13,507,520	216,736,584	216,736,584	14,753,868	669,285,051	230,244,104	
Aug....	12,159,488	184,171,500	182,295,762	378,626,750	12,159,488	151,847,492	182,076,356	15,280,622	575,983,728	194,235,844	
Sept....		186,582,000	186,350,152	372,932,152		190,939,018	190,939,018	15,038,268	578,909,438	190,939,018	
Oct....		184,941,000	181,762,422	366,703,422		187,457,485	187,457,485	15,995,140	570,156,047	187,457,485	
Nov....		184,620,000	182,199,049	366,819,049		167,638,726	167,638,726	16,718,226	551,176,001	167,638,726	
Dec....	4,019,968	194,205,000	191,569,941	389,794,909	4,019,968	196,694,174	196,694,174	16,403,282	602,892,365	200,714,142	
Totals ..	233,405,248	2,186,506,500	2,160,369,703	4,580,281,451	233,405,248	2,175,921,250	2,220,615,154	167,502,188	6,953,983,793	2,489,555,402	

TABLE SHOWING SOURCE OF SUPPLY, QUANTITY PUMPED, AND COST OF PUMPING AT THE SEVERAL STATIONS DURING THE YEAR 1919.

Pumping Station	Source of Supply—Well Water				Cost	
	555 Driven Wells at Pawtucket Boulevard	210 Driven Wells in Valley of River Meadow Brook	Distributing Mains of Low Service System	Totals in U. S. Gallons	Totals	Per Million Gallons
West Sixth Street—Low Service.....	2,206,150,154			2,206,150,154	\$32,064.08	14.53
High Service.....			167,502,188	167,502,188	4,562.24	27.23
Cook Wells.....		233,405,248		233,405,248	9,397.39	40.26
Lower Boulevard.....	2,160,369,703			2,160,369,703	31,392.37	14.53
Total Pumpage.....				4,767,427,293	77,416.08	16.24--
Deduct Quantity at Lower Boulevard.....	2,160,369,703		167,502,188	2,327,871,402		
Pumped by High Service.....						
Net Pumpage.....						
Cost exclusive of High Service.....				2,439,555,402	77,416.08	31.73
Cost exclusive of High Service and Cook Wells.....				2,439,555,402	72,853.84	29.86
Total Cost High Service Pumpage.....				2,206,150,154	63,456.45	28.76
				167,502,188	9,429.15	56.29

The following tables, showing the performance of the engines, depth and quantity of water in the Beacon Street Reservoir and Christian Street Reservoir, average temperature of the air and water at the Christian Street Reservoir, and the average monthly and daily consumption of water have been calculated and compiled from the records kept by the engineers and gate-keeper.

TABLE SHOWING WORK DONE WITH ALLIS-CHALMERS ENGINE, AT WEST
SIXTH STREET PUMPING STATION FOR EACH MONTH
DURING THE YEAR 1919.

Months	No. of days Pumping	Average No. of hours Pumping per day	No. of hours Pumping per Month	No. of Strokes made per Month	Average No. of Strokes per Minute	Average head including friction in feet	Quantity Pumped in U. S. Gallons	Average Quantity Pumped Per day in U. S. Gallon	No. Gals. of water pumped into res. t'l coal consumed	Duty in ft.s. with 100 lbs. coal used in Pumping only no deduction for ashes or clinkers	Duty on total coal consumed no deduction for ashes or clinkers
January.....	30	23-40	710	1,098,375	25.78	190.87	152,674,125	5,089,137	992	158,264,385	158,264,385
February.....	28	23-32	659	1,089,540	27.58	190.87	151,446,060	5,408,787	865	137,560,366	137,560,366
March.....	31	24-00	744	1,218,610	27.29	189.97	169,386,790	5,464,090	894	141,629,508	141,629,508
April.....	30	24-00	720	1,269,160	29.38	190.87	176,413,240	5,880,441	885	148,166,648	148,166,648
May.....	31	23-52	740	1,445,304	32.55	190.87	200,897,256	6,480,556	940	150,290,523	150,290,523
June.....	30	23-52	716	1,538,060	35.81	190.87	213,790,340	7,126,345	915	145,644,641	145,644,641
July.....	31	24-00	744	1,559,256	34.95	190.87	216,736,584	6,991,502	922	146,627,410	146,627,410
August.....	25	23-21	584	1,092,428	31.17	168.75	151,847,492	6,073,499	845	119,055,509	119,055,509
September.....	30	23-44	712	1,373,662	32.15	167.83	190,939,018	6,364,634	1046	146,892,902	146,892,902
October.....	31	23-50	739	1,348,615	30.41	167.83	187,457,485	6,047,015	1045	146,333,012	146,333,012
November.....	29	22-27	651	1,206,034	30.88	167.83	167,638,726	5,780,647	933	130,695,993	130,695,993
December.....	31	24-00	744	1,415,066	31.70	181.22	196,694,174	6,344,973	957	144,644,885	144,644,885
Totals and Averages..	357	23-42	8,463	15,654,110	30.82	188.24	2,175,921,290	6,095,017	935	146,907,309	146,907,309

TABLE SHOWING WORK DONE WITH WORTHINGTON HIGH SERVICE
ENGINE AT WEST SIXTH STREET PUMPING STATION, FOR EACH MONTH
DURING THE YEAR 1919.

Months	No. of days Pump- ing	Average No. of hours Pumping per day	No. of hours Pumping per Month	No. of Strokes made per Month	Average No. of strokes made per Minute	Average head including friction in feet	Quantity Pumped per month in U. S. Gallons	Average Quantity Pumped per day in U.S. Gallons	No. Gals. of water pumped into res. per lb. total coal consumed	Coal in Pounds used when Pumping
January.....	31	24-00	744	822,631	18.43	218.88	11,516,834	371,511	232	50,069
February.....	28	24-00	672	784,701	19.44	237.31	10,985,814	392,350	257	42,674
March.....	31	24-00	744	909,213	20.16	218.88	12,602,982	406,548	254	49,576
April.....	30	24-00	720	861,620	19.94	218.88	12,062,680	402,087	254	47,458
May.....	31	24-00	744	896,205	20.07	218.88	12,546,870	404,736	255	49,176
June.....	30	24-00	720	971,293	22.48	241.92	13,598,102	453,270	249	54,531
July.....	31	24-00	744	1,053,812	23.61	241.92	14,753,368	475,915	250	58,923
August.....	31	23-52	740	1,091,473	24.58	241.92	15,230,622	492,923	250	61,058
September.....	30	24-00	720	1,074,162	24.86	241.92	15,033,268	501,275	250	63,198
October.....	31	24-00	744	1,142,510	25.59	221.18	15,995,140	515,972	252	63,621
November.....	30	24-00	720	1,194,153	27.64	221.18	16,718,226	557,274	251	66,617
December.....	31	24-00	744	1,171,663	26.24	221.18	16,403,282	529,138	248	66,238
Totals and Averages.....	365	23-59	8,756	11,964,442	22.77	228.67	167,502,188	458,910	250	670,139

TABLE SHOWING WORK DONE WITH DEAN ENGINES AT COOK WELLS
PUMPING STATION, FOR EACH MONTH DURING THE YEAR 1919.

Months	No. of days pump- ing	Average No. of hours pumping per day	No. of hours pumping per month	No. of strokes made per month	Average No. of strokes made per minute	Average head including friction in feet	Quantity pumped per month in U. S. Gallons	Average quantity pumped per day in U. S. Gallon	No. Gallons of water pumped into dis-tributing mains per lb. total coal consumed	Duty in lbs. 1 ft. high with 100 lbs. total coal used no deduction for ashes or clinkers
January.....	31	24-00	744	1,079,646	24.18	181.31	63,097,344	2,223,947	214	32,309,560
February.....	27	22-16	601	664,281	18.42	173.40	42,513,984	1,574,595	214	31,765,789
March.....	21	21-40	455	557,083	20.40	177.37	35,653,312	1,697,777	209	30,875,293
April.....	15	20-04	361	383,342	21.22	178.28	24,533,888	1,635,592	227	34,104,165
May.....	12	17-35	211	230,020	18.17	171.32	14,721,280	1,226,773	226	32,222,752
June.....	12	18-30	222	268,726	20.16	174.25	17,198,464	1,433,205	222	32,303,055
July.....	9	19-20	174	211,655	20.21	175.98	13,507,520	1,500,835	216	31,730,813
August.....	7	22-35	158	189,992	20.03	163.14	12,159,488	1,737,069	246	33,434,348
September.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
November.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
December.....	2	24-00	48	62,812	21.81	144.67	4,019,968	2,009,984	211	25,536,989
Totals and Averages.....	136	21-26	2,914	3,646,957	20.86	176.46	233,405,248	1,716,215	217	31,986,129

TABLE SHOWING WORK DONE WITH HOLLY HIGH DUTY ENGINE (CRANK AND FLY WHEEL) AT LOWER BOULEVARD PUMPING STATION FOR EACH MONTH DURING THE YEAR 1919.

Months	No. of days Pumping	Average No. of hours Pumping per day	No. of hours Pumping per month	No. of strokes made per month	Average No. of strokes made per minute	Average head including friction in feet	Quantity pumped in U. S. Gallons	Average Quantity Pumped per day in U. S. Gallons
January.....	31	23-50	739	1,056,750	23.83	53.35	153,512,500	5,113,307
February.....	28	23-31	659	970,440	24.54	53.32	145,566,000	5,198,789
March.....	31	24-00	744	1,091,730	24.44	53.42	163,767,000	5,282,807
April.....	30	24-00	720	1,120,160	25.94	53.31	168,024,000	5,600,800
May.....	31	23-55	741½	1,313,920	29.33	53.22	197,088,000	6,357,677
June.....	30	23-52	716	1,371,270	31.92	58.21	205,690,500	6,856,350
July.....	31	23-55	742	1,422,260	31.92	57.36	213,339,000	6,881,903
August.....	31	23-46	737	1,227,810	27.76	54.83	184,171,500	5,941,016
September.....	30	23-48	714	1,243,880	29.03	55.07	186,582,000	6,219,400
October.....	31	23-38	733	1,232,940	28.03	55.83	184,941,000	5,965,839
November.....	30	23-40	710	1,230,800	28.89	56.39	184,620,000	6,154,000
December.....	31	23-51	739½	1,294,700	29.18	58.17	194,205,000	6,264,677
Totals and Averages.....	365	23-49	8,695	14,576,710	27.95	56.28	2,186,506,500	5,930,429

TABLE SHOWING AMOUNT OF COAL USED
FOR ALLIS-CHALMERS ENGINE AT
PUMPING STATION, WEST SIXTH
STREET, DURING THE YEAR 1919.

Months	COAL CONSUMED			
	For Starting Fires in pounds	When Pumping in pounds	For Banking Fires in pounds	Total in pounds
January.....		153,618		153,618
February.....		175,218		175,218
March.....		189,554		189,554
April.....		139,601		199,601
May.....		212,864		212,864
June.....		233,751		233,751
July.....		235,384		235,384
August.....		179,566		179,566
September.....		182,006		182,006
October.....		179,371		179,371
November.....		179,599		179,599
December.....		205,595		205,595
Totals.....		2,326,129		2,326,129

Gallons pumped per pound of total coal consumed — 935

TABLE SHOWING AMOUNT OF COAL USED
FOR DEANE ENGINES AT PUMPING
STATION, COOK WELLS, DURING
THE YEAR 1919.

Months	COAL CONSUMED			
	For Starting Fires in pounds	When Pumping in pounds	For Banking Fires in pounds	Total in pounds
January.....		323,500		323,500
February.....		199,200		199,200
March.....	4,800	166,080		170,880
April.....	3,200	103,800		107,000
May.....	4,800	60,500		65,300
June.....	6,400	71,000		77,400
July.....	1,600	60,900		62,500
August.....		49,500		49,500
September.....				
October.....				
November.....				
December.....	2,000	17,000		19,000
Totals.....	22,800	1,051,480		1,074,280

Gallons pumped per pound of total coal consumed — 217

TABLE SHOWING AMOUNT OF COAL USED
FOR HOLLY ENGINE AND NEW TUR-
BINE, AT PUMPING STATION, LOWER
BOULEVARD, DURING THE
YEAR 1919.

Months	COAL CONSUMED				Gals. pumped into conduit per lb. total coal consumed
	For Starting Fires in pounds	When Pumping in pounds	For Banking Fires in pounds	Total in pounds	
January.....		218,070		218,070	714
February.....		215,805		215,805	666
March.....	1,000	236,715		237,715	680
April.....	1,200	226,235		227,435	730
May.....		251,860		251,860	774
June.....	1,000	255,520		256,520	793
July.....		262,035		262,035	804
August.....	1,000	214,970		215,970	846
September.....		218,365		218,365	854
October.....	1,000	228,565		229,565	827
November.....		254,315		254,315	716
December.....	1,000	297,575		298,575	646
Totals....	6,200	2,880,030		2,886,230	748

WEST SIXTH STREET PUMPING STATION, ALLIS-CHALMERS
ENGINE; RUNNING EXPENSES FOR THE YEAR 1919

Pay of Engineers and Firemen.....	\$16,354.00
221. 1232-2000 tons (1918) coal at \$12.30	2,726.25
25. 962-2000 tons (1919) coal at \$8.51	216.58
818. 1301-2240 tons (1919) coal at \$9.77	8,004.65
Engine Repairs	226.66
Boiler Repairs	3,022.41
Elec. Engine Repairs	78.86
Supplies	642.63
Sundries	107.59

Total \$31,379.63

Cost of pumping water into reservoir, per million gallons, \$14.42+

Cost of pumping water 1 foot high, per million gallons, \$0.07 66/100.

WEST SIXTH STREET PUMPING STATION, HIGH SERVICE
ENGINE; RUNNING EXPENSES FOR THE YEAR 1919

Pay of Engineers and Firemen	\$ 1,267.62
64. 275-2000 tons of coal (1918) at \$12.30	788.90
7. 746-2000 tons of coal (1919) at \$8.51	62.67
236. 1953-2240 tons of coal (1919) at \$9.77	2,316.30
Supplies	126.75

Total \$4,562.24

Cost of pumping water into reservoir, per million gallons, \$27.23+

Cost of pumping water 1 foot high, per million gallons, \$0.46 55/100

COOK WELLS PUMPING STATION, DEANE ENGINES;

RUNNING EXPENSES FOR THE YEAR 1919

Pay of Engineers and Firemen	\$4,569.13
292. 220-2000 tons of coal (1918) at \$10.25	2,994.12
48. 600-2000 tons of coal (1919) at \$8.60	415.38
121. 1180-2240 tons of coal (1919) at \$8.15	990.13
Engine Repairs	78.38
Boiler Repairs	44.05
Supplies	151.03
Sundries	155.17

Total \$9,397.39

Cost of pumping water into distributing mains, per million gallons,
\$40.26+

Cost of pumping water 1 foot high, per million gallons, \$0.22 82/100

LOWER BOULEVARD PUMPING STATION, HOLLY ENGINE AND
KERR TURBINE; RUNNING EXPENSES FOR
THE YEAR 1919

Pay of Engineers and Firemen	\$16,470.07
113. 1690-2000 tons of coal (1918) at \$12.17	1,385.47
103. 1305-2000 tons of coal (1919) at \$12.00	1,243.85
1098. 354-2240 tons of coal (1919) at \$9.68	10,621.42
Engine Repairs	191.81
Boiler Repairs	458.22
Supplies	874.47
Sundries	146.81

Total \$31,392.37

Cost of pumping water into conduit, per million gallons, \$14.53+

Cost of pumping water 1 foot high, per million gallons, \$0.25 82/100

WEST SIXTH STREET PUMPING STATION, WORTHINGTON
DUPLEX ENGINE; RUNNING EXPENSES FOR THE
YEAR 1919

Pay of Engineers and Firemen	\$232.10
7. 834-2000 tons of coal (1918) at \$12.30	91.23
0. 1704-2000 tons of coal (1919) at \$8.51	7.25
27. 880-2240 tons of coal (1919) at \$9.77	267.87
Engine Repairs, etc.	86.00
Total	\$684.45
Cost of pumping water into reservoir per million gallons, \$22.64	
Cost of pumping water 1 foot high per million gallons, \$0.13 87/100	

BEACON STREET RESERVOIR.

Months	Depth in feet	Quantity in U. S. Gallons	Temperature in Degrees	
			of Water	of Air
January.....	29.32	31,079,118	34.6	28.6
February.....	20.21	30,867,148	37.5	29.6
March.....	19.73	30,092,566	40.7	39.1
April.....	19.18	29,129,533	45.9	45.4
May.....	19.12	29,043,229	57.6	58.5
June.....	19.16	29,112,922	70.7	69.5
July.....	18.85	23,590,960	74.7	74.6
August.....	19.34	29,392,117	69.5	68.1
September.....	19.56	29,776,943	64.7	62.1
October.....	19.52	29,706,897	57.2	52.2
November.....	19.19	29,008,383	44.9	39.7
December.....	18.83	28,556,220	36.7	25.4

CHRISTIAN STREET RESERVOIR.

Months	Elevation of Water	Quantity in U. S. Gallons	Temperature in Degrees	
			of Water	of Air
January.....	206.20	3,795,455	54.8	28.6
February.....	206.07	3,784,819	52.3	29.6
March.....	202.56	3,067,980	51.0	39.1
April.....	203.61	3,280,692	49.7	45.4
May.....	205.27	3,621,031	49.3	58.5
June.....	203.86	3,331,743	51.9	69.5
July.....	205.20	3,608,268	55.5	74.6
August.....	203.82	3,327,489	60.0	68.1
September.....	203.50	3,259,421	60.8	62.1
October.....	203.41	3,242,405	59.7	52.2
November.....	197.92	2,119,287	58.0	39.7
December.....	201.16	2,765,930	56.4	25.4

TABLE SHOWING THE AVERAGE MONTHLY
AND DAILY CONSUMPTION OF WATER
FOR THE YEAR 1919.

Months	Gallons per Month	Gallons per Day
January.....	221,673,549	7,150,759
February.....	194,405,043	6,943,037
March.....	206,527,565	6,662,179
April.....	202,446,512	6,748,217
May.....	214,941,109	6,933,584
June.....	231,349,270	7,711,642
July.....	229,189,823	7,389,994
August.....	194,098,580	6,261,244
September.....	191,113,986	6,370,466
October.....	187,896,463	6,061,176
November.....	168,466,278	5,615,542
December.....	207,670,209	6,699,039
Totals and Averages.....	2,449,778,387	6,711,721

The following table shows the average daily consumption of water, in gallons, for each month and each year from January 1900 to January 1920.

AVERAGE DAILY CONSUMPTION OF WATER IN GALLONS FOR EACH MONTH
AND YEAR FROM JANUARY, 1900, TO DECEMBER, 1919, INCLUSIVE—Continued.

Years	MONTHS												For the Year
	January	February	March	April	May	June	July	August	Sept.	October	November	December	
1900	7,511,163	8,127,419	8,024,115	7,665,888	7,734,911	8,037,993	8,696,110	8,268,526	8,138,836	7,386,297	7,292,997	7,844,543	7,893,356
1901	8,266,601	9,055,112	8,260,895	6,914,082	6,580,172	7,083,342	7,263,332	6,766,772	6,514,839	6,183,286	5,748,730	6,197,726	7,059,631
1902	6,171,220	6,114,804	5,651,749	5,446,046	5,797,401	6,217,117	6,083,104	5,963,910	5,461,552	5,107,818	4,771,831	5,969,016	5,729,325
1903	6,160,966	6,054,616	5,115,198	5,147,423	5,581,932	5,124,402	5,563,775	5,018,208	4,936,025	4,809,428	4,613,355	5,112,884	5,266,823
1904	6,655,276	7,188,622	5,554,904	4,791,851	5,220,707	5,562,331	5,576,895	5,136,152	5,417,024	4,940,185	4,580,887	5,257,670	5,485,323
1905	5,777,996	6,857,608	5,525,104	5,316,825	5,283,217	5,152,313	5,555,262	5,819,160	5,025,355	5,447,880	4,983,105	5,034,701	5,474,202
1906	4,834,565	5,142,265	5,001,817	4,950,731	5,025,778	5,074,773	5,391,923	5,440,761	5,486,986	4,980,724	4,398,655	5,269,259	5,083,856
1907	5,812,515	6,967,163	5,996,990	5,089,614	5,485,391	5,640,334	5,674,592	6,046,145	5,414,610	5,198,286	4,492,525	4,587,374	5,526,118
1908	4,892,197	6,303,981	5,126,110	4,847,459	4,879,046	5,597,233	6,130,861	5,027,742	5,420,566	5,647,718	4,754,252	4,607,084	5,250,367
1909	4,994,704	5,025,674	4,781,957	4,846,081	4,947,820	5,504,361	6,114,545	6,167,967	5,470,110	5,137,479	4,863,788	5,000,414	5,240,385
1910	5,527,751	5,580,827	5,110,820	5,144,907	5,188,944	5,317,145	6,521,061	6,087,138	5,563,421	5,234,485	4,787,436	5,234,080	5,442,967
1911	5,257,816	5,432,082	5,298,391	5,246,301	6,134,973	6,040,921	6,917,779	5,103,294	4,920,793	4,428,730	4,246,149	4,240,112	5,272,705
1912	6,358,297	6,561,176	5,284,140	4,688,407	4,995,391	5,575,438	6,486,243	5,434,269	4,878,253	4,671,007	4,603,420	4,917,829	5,369,405
1913	4,866,972	5,359,348	5,024,197	4,944,870	5,370,378	6,882,636	6,169,715	6,822,676	5,933,963	5,790,277	5,740,322	5,645,862	5,798,652
1914	6,352,604	6,735,824	5,697,707	5,109,164	5,924,982	6,720,431	6,172,412	5,837,250	6,438,210	5,951,984	5,419,522	5,508,103	5,983,614
1915	5,573,201	5,494,049	5,262,766	5,097,062	5,129,916	5,551,194	5,193,378	5,258,356	6,133,417	5,516,235	5,565,839	5,380,197	5,427,352
1916	5,755,258	5,899,397	6,084,883	5,873,077	6,150,601	6,069,636	6,392,772	6,663,611	6,396,882	6,154,035	5,805,068	5,907,239	6,096,074
1917	6,430,319	6,311,904	6,160,132	5,976,292	5,883,830	6,126,487	7,249,137	7,678,877	6,420,848	6,156,959	6,391,974	6,891,381	6,479,729
1918	8,259,875	8,429,403	7,087,509	6,696,850	7,947,023	8,093,050	7,531,325	8,135,109	7,437,192	6,683,899	7,025,124	7,243,936	7,544,243
1919	7,150,759	6,934,037	6,662,179	6,748,217	6,933,584	7,711,642	7,389,994	6,261,244	6,370,466	6,061,176	5,615,542	6,699,039	6,711,721

SUMMARY OF STATISTICS

FOR THE YEAR ENDING DECEMBER 31, 1919

In form recommended by the New England Water Works
Association

LOWELL WATER WORKS

LOWELL, MIDDLESEX COUNTY, MASSACHUSETTS

GENERAL STATISTICS

Population by census of 1920, 112,479.

Date of construction, 1870 to 1873.

Date of construction, High Service, 1881.

Date of construction, Driven Wells, 1893 to 1912.

By whom owned? The City of Lowell.

Source of supply: Two hundred ten (210) driven wells in the valley of River Meadow Brook, and five hundred fifty-five (555) driven wells at Pawtucket Boulevard.

Mode of supply: Pumping to reservoir and pumping direct.

PUMPING STATISTICS

1. Builders of Pumping Machinery.

AT WEST SIXTH STREET STATION

One engine, capacity 5,000,000 gallons in twenty-four hours, Henry R. Worthington.

One engine, capacity 500,000 gallons in twenty-four hours, Henry R. Worthington.

One engine, capacity 8,000,000 gallons in twenty-four hours, Allis-Chalmers Company.

AT COOK WELLS STATION, TEMPORARY PUMPS

One engine, capacity 3,000,000 gallons in twenty-four hours, The Deane Steam Pump Company.

One engine, capacity 3,000,000 gallons in twenty-four hours, The Deane Steam Pump Company.

AT LOWER BOULEVARD STATION

One engine, capacity 8,000,000 gallons in twenty-four hours, The Holly Manufacturing Company.

One engine, capacity 8,000,000 gallons in twenty-four hours, The Holly Manufacturing Company.

One engine, capacity 7,000,000 gallons in twenty-four hours, The Kerr Turbine Company.

One engine, capacity 10,000,000 gallons in twenty-four hours, The Kerr Turbine Company.

AT UPPER BOULEVARD STATION, TEMPORARY PUMPS

One engine, capacity 3,000,000 gallons in twenty-four hours, Henry R. Worthington.

One engine, capacity 3,000,000 gallons in twenty-four hours, Henry R. Worthington.

- | | | |
|-------------------------------|---|---|
| 2. Descriptions of fuel used: | { | a. Kind, Bituminous.
b. Brand of coal, New River.
c. Average price of coal per gross ton delivered, \$10.42.
d. Percentage of ash.
e. Wood, price per cord. |
|-------------------------------|---|---|

3. Coal consumed for the year, 8,430,334 pounds.

4. Pounds of wood $\div 3$ = equivalent amount of coal.

5. Total equivalent coal consumed for the year (3) + (4) 8,430,334 pounds.
6. Total pumpage for the year, 4,767,427,293 gallons.
7. Average static head against which Low Service pumps at West Sixth Street work, 171.21 feet.

Average static head against which pump at Lower Boulevard works, 45.85 feet.
8. Average dynamic head against which pumps work:

West Sixth Street, Low Service	188.24
West Sixth Street, High Service	58.50
Lower Boulevard	56.28
9. Number of gallons pumped per pound of equivalent coal (5) = 565
10. Cost of pumping per million gallons, figured on pumping station expenses, viz., \$77,416.08, \$16.24
11. Cost of purifying per million gallons, figured on filter expenses, viz., \$12,777.64, \$5.91+.

STATISTICS OF CONSUMPTION OF WATER

1. Estimated total population at date, 112,479.
2. Estimated population on lines of pipe, 112,479.
3. Estimated population supplied, 112,479.
4. Total consumption for the year, 2,449,778,387 gallons.
5. Passed through meters, 1,480,700,925 gallons.
6. Percentage of consumption metered, 60.45.
7. Average daily consumption, 6,711,721 gallons.
8. Gallons per day to each inhabitants, 59.66.
9. Gallons per day to each consumer, 59.66.
10. Gallons per day to each tap, 472.39.
11. Cost of supplying water per million gallons, figured on total maintenance, \$83.33.
12. Total cost of supplying water per million gallons, figured on total maintenance and interest on bonds, \$106.16.

STATISTICS RELATING TO DISTRIBUTION SYSTEM

Mains

1. Kind of pipe, cast iron.
2. Sizes, 4 inches to 30 inches.
3. Extended 4,285.3 feet during the year.
4. Total now in use, 161 27 miles.
5. Length of pipe less than 4 inches diameter, 4 miles, more or less.
6. Number of hydrants added during the year (public and private), 9.
7. Number of hydrants (public and private) now in use, 1,464.
8. Number of stop gates added during the year, 22.
9. Number of stop gates now in use, 2,148.
10. Number of stop gates smaller than 4 inches, 52.
11. Number of blow-offs, 33.
12. Range of pressure on mains, 27 lbs. to 82 lbs., Low Service.

SERVICES

13. Kind of pipe, lead, lead-lined iron, iron and tin-lined iron.
14. Sizes, $\frac{5}{8}$ in. to 8 in.
15. Extended, 9,231.2 feet.
16. Total now in use, 107.83 miles.
17. Number of Service Taps added during the year, 223.
18. Number now in use, 14,208.
19. Average length of service, 40.96 feet.
20. Average cost of service for the year, 42.58.
21. Number of meters added, 384.
22. Number now in use, 12,445.
23. Percentage of services metered, 87.6%.
24. Percentage of receipts from metered water, 95.4%.

Respectfully submitted,

STEPHEN KEARNEY,

City Engineer.

ANNUAL REPORT
OF THE
Births, Marriages
and Deaths
OF THE
CITY OF LOWELL



FOR THE YEAR

1919

CITY OF LOWELL

OFFICE OF THE CITY CLERK, May 11, 1920.

To the Municipal Council,

GENTLEMEN:

The annual report of Births, Marriages and Deaths for the year 1919, as of record in this office, is respectfully submitted as follows:

BIRTHS

Wards	1	2	3	4	5	6	7	8	9	Total
Whole										
Number	182	470	293	315	293	751	246	249	216	3015
Males	99	241	155	158	153	370	122	129	109	1536
Females	83	229	138	157	140	381	124	120	107	1479
American										
Parents	70	61	124	74	79	199	101	129	106	943
Foreign										
Parents	62	368	91	201	171	330	79	52	53	1407
American Father	26	21	34	22	22	97	43	31	32	328
Foreign Mother										
American Father	24	20	44	18	21	125	23	37	25	337
Foreign Mother										
Twins	1	3	3	4	3	6	1	5	3	29
Triplets				1		1				2

In addition 51 births are recorded, the parents being residents elsewhere, and 28 births occurring elsewhere of parents residents of Lowell. Still births not included 108.

MARRIAGES

Thirteen hundred sixty-two marriages were recorded for the year 1919, eleven hundred eighty-three being solemnized in Lowell and one hundred seventy-nine elsewhere.

MARRIAGES BY MONTHS

January.....	103	May.....	95	September.....	116
February.....	101	June.....	188	October.....	158
March.....	58	July.....	85	November.....	152
April.....	91	August.....	116	December.....	99

NATIONALITY OF CONTRACTING PARTIES

	Grooms	Brides
United States	808	793
Canada	179	202
Greece.....	127	122
Austria and Russia.....	66	57
Ireland	54	76
Portugal, Azores and Madeira.....	35	38
England	32	33
Norway and Sweden.....	13	14
Scotland....	11	11
Turkey and Armenia.....	13	6
Italy	10	3
Other countries	14	7

Grooms under 21 years 102 ; Brides under 18 years 48.

DEATHS

The number of deaths in the city returned and recorded for 1919, exclusive of still births, was 1708; males 834, females 874; ninety-nine of this number being non-residents. The deaths of 135 Lowell residents who died elsewhere being also recorded.

Detailed statistics relative to deaths may be obtained in the report of the Board of Health.

Very respectfully,

STEPHEN FLYNN,

City Clerk.

FORTY-SECOND ANNUAL REPORT
OF THE
BOARD OF HEALTH
OF THE
CITY OF LOWELL



FOR THE YEAR

1919

ORGANIZATION, 1919

BOARD OF HEALTH

PIERRE BRUNELLE, M. D., Chairman

THOMAS F. CARROLL, M. D.

JOHN E. DRURY

HEALTH DEPARTMENT OFFICERS

Office Employees

FRANCIS J. O'HARE, Agent

SPENCER D. BROWN, Fumigator

JOHN N. DRURY, M. D., Tuberculosis Examining Physician

WILLIAM A. JOHNSON, M. D., Vaccinating Physician

HAROLD L. LELAND, M. D., Attending Physician Genito-
Urinary Clinic

JAMES Y. RODGER, M. D., Bacteriologist

MARY A. FINNEGAN, R. N., Child Welfare Nurse

BERTHA M. KIRWIN, R. N., Tuberculosis Nurse

MARY LYNCH, R. N., Child Welfare Nurse

ANNA C. O'DWYER, R. N., Child Welfare Nurse

LOIS A. TITCOMB, R. N., Child Welfare Nurse

HELEN V. TOMPKINS, R. N., Child Welfare Nurse

ELLEN E. McEVOY, Clerk

KATHARINE W. SNOW, Registrar

INSPECTORS

WILLIAM H. CONNORS, General Inspector

STEPHEN GARRITY, Plumbing Inspector

CLEMENT A. HAMBLET, M. D. V., Inspector of Meats and

Provisions

JOHN KEARNEY, Health Inspector

CHARLES N. MIDWOOD, Plumbing Inspector

MILK DEPARTMENT

MELVIN F. MASTER, B. S., Milk Inspector

JOHN J. COUGHLIN, Collector of Samples

PRIVATE SCHOOL PHYSICIANS

HOWARD W. JEWETT, M. D.

RODRIGUE MIGNAULT, M. D.

FREDERICK P. MURPHY, M. D.

RALPH C. STEWART, M. D.

LOWELL, MASS., JAN. 1, 1920.

*To the Honorable Mayor and Members of the Municipal Council
of the City of Lowell.*

GENTLEMEN:—

The Board of Health respectfully presents its forty-second annual report.

PIERRE BRUNELLE, M. D., Chairman,
THOMAS F. CARROLL, M. D.,
JOHN N. DRURY,

Board of Health.

On January 3, 1919, Frederick A. Bates, agent of this department, passed away. Mr. Bates was a native of Vermont, born in the town of Springfield, and resided there until his enlistment in the War of the Rebellion, serving with credit throughout the war in the 7th Vermont Infantry, and at its close again took up his civic duties, this time locating in Lowell about 1866.

In 1883 he entered the service of the City of Lowell as agent and superintendent of the Health Department. For years in that position he was indefatigable in his zeal for the protection of the people of Lowell against contagious and infectious diseases, and it was due to his unremitting care more than to any other agency that the success of the department was attained.

Not only was he interested as an official in the faithful discharge of his duties, but he exemplified the sterling qualities of a Christian gentleman by his thoughtfulness in extending financial aid to the needy from his own purse.

To those who served under him he was kindness itself, never

domineering or ready to shift responsibility to other shoulders. Rain or shine, day in and day out, Sundays as well as holidays, found him at his post, cheerful and conscientious—an inspiration to all with whom he came in contact.

MORTALITY

The number of deaths from all causes in the city of Lowell, which includes the deaths of persons visiting temporarily, was 1709. This is the lowest in total deaths in any one year since 1887, and is 764 less than in 1918. The percentage of deaths per 1000 on the population was 15.82, which is the lowest death rate since 1850.

There was a marked reduction in the infant mortality rate for the past year. During 1918 there were 525 deaths of children under one year, and for 1919 there were 377 deaths. This reduction in the infant mortality rate is no doubt due in a measure to the introduction of the child welfare nurses, who visit the homes of all newborn babies and instruct the mothers as to how the babies should be cared for. This is considered by all public health officials to be one of the best methods of educating the community to the care and attention that should be given to infants during the first year of life, and it is hoped that the City Council will provide the means whereby the department can employ more nurses to carry on this work among children of pre-school age. It would be an interesting experiment if sufficient funds could be provided, to establish child welfare stations on the Aiken St. Playground and the North Common with a physician and one or two nurses in attendance three days a week during the summer months. Effective work could be done by reaching the babies while they are well, and teaching the mothers how to prevent their babies from becoming ill.

DIPHTHERIA

There were 234 cases of diphtheria reported for the year. Of this number 23 died, or a mortality of 9.8 per cent. The dangerous results of this disease would be very materially lessened if parents would immediately call their family physician when

their children have sore throats, and request that the physician take cultures of inflamed sore throats and discharging noses.

SCARLET FEVER

There were 327 cases of scarlet fever and 6 deaths, or 1.8 per cent of the total cases.

TYPHOID FEVER

There were 31 cases of typhoid fever reported for the year, with 4 deaths. During the months of August and September 24 cases were reported. An immediate investigation showed that a number of these cases were using milk from one distributor who was also a producer.

Blood tests were made of all employees, but this test was unsatisfactory, as some of them had been in the military and naval service and were inoculated with the anti-typhoid vaccine. Specimens of feces and urine were then taken from all suspects, and examinations of the same proved negative.

It was also learned that in an adjoining town just over the Lowell line there was a case of suspected typhoid that later was reported as a positive case and was taking milk from the same milkman. This patient was ill for several weeks before any of the Lowell cases were taken ill, and it is the firm belief of the health officer that the outbreak in Lowell was probably caused by bottles coming from the infected household in the adjoining town.

REPORT OF WORK DONE IN BACTERIOLOGICAL LABORATORY DURING YEAR 1919

DIPHTHERIA

Examination of Cultures

	For Diagnosis		For Release		No Result	Whole Number
	Positive	Negative	Positive	Negative		
January	14	101	20	22	0	157
February	24	97	11	16	1	149
March	34	104	18	31	3	190
April	31	89	2	39	1	162
May	42	132	17	60	3	254
June	14	77	1	19	3	114
July	4	28	2	16	0	50
August	4	33	1	6	1	45
September	11	50	5	19	5	90
October	22	73	6	25	4	130
November	28	93	3	35	1	160
December	19	106	3	24	5	157
	247	983	89	312	27	1658

TUBERCULOSIS

Examination of Sputum

	Positive	Negative	No Result	Total
January	10	25	7	42
February	7	37	0	44
March	6	40	0	46
April	1	35	0	36
May	12	46	0	58
June	7	28	0	35
July	12	39	1	52
August	17	30	0	47
September	14	51	0	65
October	8	34	0	42
November	4	40	0	44
December	3	29	0	32
	101	434	8	543

TYPHOID FEVER

Examination of Blood for Widal Reaction

	Positive	Negative	Atypical	No Result	Total
January	0	6	0	0	6
February	1	6	0	0	7
March	1	4	0	0	5
April	0	6	0	0	6
May	0	12	0	0	12
June	0	5	0	0	5
July	0	9	0	0	9
August	4	16	3	0	23
September	12	15	1	1	29
October	2	3	0	0	5
November	0	8	0	0	8
December	3	3	0	0	6
	23	93	4	1	121

OPHTHALMIA NEONATORUM

There were 19 examinations made, 3 of which proved positive and 16 negative.

CONJUNCTIVITIS

There were 4 examinations made, one of which was positive and 3 negative.

GONORRHOEA

Seventy examinations made, 24 of which were positive and 46 negative.

CEREBRO-SPINAL MENINGITIS

There were 4 examinations made, 2 of which were positive and 2 negative.

MALARIA

Two examinations were made, both of which were negative. There were 6 Neisser examinations made, all of which were

negative.

Two tests were made for Vincent's Angina, both of which were positive.

General examinations were made in 4 cases of various materials, pus, blood and exudates.

Respectfully submitted,

JAMES Y. RODGER, M. D.,
Bacteriologist.

REPORT OF INSPECTOR OF MILK

LOWELL, MASS., JAN. 1, 1920.*To the Lowell Board of Health.*

GENTLEMEN:—

I have the honor to present the report of the Department of Milk and Vinegar Inspection for the twelve months beginning Jan. 1, 1919.

Four thousand seventeen samples of milk, skimmed milk, and cream were examined during the year. There were fifteen samples of vinegar and seven samples of butter tested. Fifty-three samples of ice cream were examined. Two hundred nine bacterial examinations of milk were made.

There were four hundred and twenty-three milk licenses, and thirty-nine oleomargarine licenses issued during the twelve months.

There were two cases of watered milk prosecuted in Police Court and one in Superior Court. There was one prosecution for improper use of registered milk bottles.

One hundred and seventy-one milk plants were visited during the year. Four hundred and seven stores and seventy-eight dairy farms were inspected. Eight hundred and forty-seven wagons were stopped on the streets and samples of milk seized. Fourteen ice cream manufacturing plants were inspected. Personal supervision of the pasteurization of milk was made twenty-four days during the year.

About seventy per cent of the milk dealers of Lowell are at present equipped with apparatus for sterilizing their bottles and cans with steam. The remainder, who are delivering but a few quarts each per day, are obliged to boil their bottles and cans.

There are five milk dealers delivering milk in the City of Lowell who have installed pasteurizing apparatus.

Respectfully submitted,

MELVIN F. MASTER, B. S.

Inspector of Milk and Vinegar.

REPORT OF EXAMINING PHYSICIAN FOR TUBERCULOSIS CLINIC

LOWELL, MASS., JAN. 1, 1920.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

I have the honor to submit a report of the work done by me as Examining Physician from Jan. 1st, 1919 to Dec. 31st, 1919:—

Total number of cases examined at the clinic	357
New cases	184
Old cases under observation	173
New cases of tuberculosis	97
I. Incipient cases of tuberculosis	26
II. Moderately advanced cases	39
III. Advanced	32
Arrested cases of tuberculosis	19
Exposed cases (children of tubercular parents)	85
Non-tubercular cases	71

COMMENTS

The attendance at the clinic continues each year to show an increase in the number of new cases examined.

In connection with the operation of the clinic, two graduate nurses are employed, one of the nurses only assisting during clinic hours, the other nurse besides assisting at the clinic, devotes the rest of her time to instructive visits at the homes of the patients.

The clinic is held in the Board Room of the Health Department at City Hall, and owing to lack of space and noise, the facilities for this work are very poor. The conditions could be greatly improved with more space in a less noisy location.

In the past two years, 195 children of tubercular parents were examined. The great majority were found to be physically defective and some were found with active lesions in their lungs.

All the cases of Pulmonary Tuberculosis in children were

sent to the State Sanatorium at Westfield, and it is very important all the others should be carefully observed during their school life.

Sanatorium treatment is strongly advocated for the incipient and moderately advanced cases, and many have been sent to the State Sanatoria.

The advanced cases are not admitted to the State Sanatoria, and it is hoped with the opening of the local Contagious Hospital these cases will have proper care.

Yours respectfully,

JOHN N. DRURY, M. D.,
Tuberculosis Examining Physician.

REPORT OF TUBERCULOSIS NURSE.

LOWELL, MASS., JAN. 1, 1920.

*Board of Health,
Lowell, Mass.*

GENTLEMEN:—

Following is the work done by me from Jan. 1, 1919 to Dec. 31, 1919 as Tuberculosis Nurse for the Health Department:—

Number of cases examined	357
New cases	184
Old cases	173
Incipient cases	26
Moderately advanced cases	39
Advanced cases	32
Exposed cases	85
Arrested cases	19
Non-tubercular cases	156

Number of cases at the following Sanatoria:

Boston Consumptives' Hospital	1
Brookline Consumptives' Hospital	1
Cambridge Consumptives' Hospital	1
Clinton Consumptives' Hospital	1
Chelmsford St. Hospital	13
Haverhill Tuberculosis Hospital	1
Lawrence Tuberculosis Hospital	18
Lakeville State Sanatorium	3
North Reading State Sanatorium	30
Rutland State Sanatorium	9
Tewksbury State Infirmary	16
Westfield State Sanatorium	16
U. S. Army Hospital at New Haven, Ct.	1

Number of deaths from Tuberculosis	157
Number of deaths (under supervision)	80
Number of deaths (not under supervision)	44
Number of deaths (other forms)	33

BOARD OF HEALTH

15

Number of visits made during the year	1988
Ophthalmia cases	1
Visits made to Ophthalmia cases	10
Scarlet Fever cases visited	15
Baby Welfare cases visited	91
Assisted at Genito-Urinary Clinic (patients given treatment	39

Respectfully submitted,

BERTHA M. KIRWIN, R. N.

REPORT OF CHILD WELFARE NURSES, for 1919

LOWELL, MASS., JAN. 1, 1920.

*Board of Health,
Lowell, Mass.*

GENTLEMEN:—

Following is a report of the visits made by me from Jan. 1st, 1919, to Dec. 31, 1919:—

New cases visited	1070
New cases revisited	409
Total number of visits	1479
Ophthalmia Neonatorum cases	18
Ophthalmia Neonatorum cases revisited	139
Infants' deaths	96
Stillbirths	35

Respectfully submitted,

MARY FINNEGAN, R. N.,

Child Welfare Nurse.

LOWELL, MASS., JAN. 1, 1920.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

Following is a report of the visits made by me from Jan. 1st, 1919, to Dec. 31st, 1919:—

Number visits postnatal	1233
Number revisits postnatal	682
Total visits prenatal	1915
New Ophthalmia cases	43
New Ophthalmia cases revisited	187
Total visits Ophthalmia cases	230
Trachoma	1
Scarlet Fever	9
Tuberculosis cases	18
Infants' deaths where visits were made	131
Stillbirths where visits were made	8
Infants' deaths where visits were not made	29
Stillbirths where visits were not made	22

Respectfully submitted,

LOIS A. TITCOMB,
Child Welfare Nurse.

REPORT OF CHILD WELFARE NURSE

LOWELL, MASS., JAN. 1, 1920.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

Following is the work done by me from Dec. 15, 1919, to Dec. 31, 1919:—

Ophthalmia cases	12
Babies visited postnatal	32
Postnatal continued	7

Respectfully submitted,

ANNA C. O'DWYER,

Child Welfare Nurse.

REPORT OF CHILD WELFARE NURSE

LOWELL, MASS, JAN. 1, 1920.

*To the Board of Health,
Lowell, Mass.*

GENTLEMEN:—

Following is a report of work done by me from Oct. 1st, 1919, to Dec. 31st, 1919:—

Postnatal visits	146
Revisits	65

Assisted Mrs. Kirwin with Tuberculosis patients during October.

Respectfully submitted,

HELEN V. TOMPKINS, R. N.

REPORT OF ATTENDING PHYSICIAN GENITO- URINARY CLINIC

LOWELL, MASS., JAN. 1, 1920.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

The Genito-Urinary Clinic of the Health Department commenced Dec. 1st, 1919, with a transfer of 35 cases from the Lowell (Corporation) Hospital, and during the month of December showed the following results:—

	New Admissions Males	Females
Syphilis	6	7
Gonococcus Infection	9	3
Chancroid	0	0
Balanitis gangrenosa	0	0
Other venereal infections	0	0
Total admissions to clinic during month	15	13
Total admissions to hospital during month	0	0
Number of patients discharged	0	0
As cured	—	..
As probably cured (under bi-monthly observation)	2	2
Non-infectious but not cured	—	—
Number of patients discontinuing treatment:		
With permission	0	0
Without permission	1	1
Number of persons at detention homes		0
Number of persons released from detention homes		0
Total number of cases of disease treated during month		61
Total number of patients treated during month		61
Total number of treatments administered (including arsphenamine)		182
Number of operations:		
Major		0
Minor		0
Laboratory examinations:		
Number of Wasserman tests		45
Number of microscopic examinations for the treponema pallidum (Dard Field not available)		
Number of microscopic examinations for the gonococcus		62

Early Treatment—Number of persons receiving early (Prophylactic) treatment:

Males	0
Females	0

Arsphenamine:

Number of doses administered	60
------------------------------------	----

Number of reactions:

Mild	2
Moderate	2
Severe	0

Personnel and service:

Number of physicians	1
Nurses	2
Social Workers (part time, looking up cases as requested)	1
Male attendants	0
Clerks	1

Clinic days, 4 wk. Clinic hours, 12 wk. Average daily attendance 11.4

Capacity of detention hospital

Educational:

Number of persons receiving literature	4
Number of lectures given	0
Total by physicians	0
By others	0
Attendance at lectures	0
Other educational work	0

Advertising of clinics:

Number of placards posted	25
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Other methods:

Small cards for personal distribution giving clinic hours.

Remarks—Clinic showing very satisfactory increase in attendance, one to three new cases per clinic. Majority of patients showing gratifying improvement under treatment. Follow-up work has brought the one or two missing treatments back to the clinic.

Respectfully submitted,

HAROLD L. LELAND, M. D.,

Attending Physician Genito-Urinary Clinic.

REPORT OF PLUMBING INSPECTORS

LOWELL, MASS., JAN. 1, 1920.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

The following is a report of the plumbing work done for the year ending Dec. 31, 1919 :—

Whole number of applications for permits to do plumbing	950
New Houses	204
Old Houses	746
	—
Total	950
Inspections	3624
Tests	1126
	—
Total	4750

Respectfully submitted,

STEPHEN GARRITY,
CHARLES N. MIDWOOD,
Plumbing Inspectors.

Notices to abate the following nuisances were sent from this office during the year 1919:—

Clogged sink waste pipes	11
Clogged drains	15
Clogged water closets	7
Clogged catch basins	1
Leaky water supply pipes	6
Leaky sink waste pipes	8
Leaky water closet tanks	3
Leaky sink traps	3
Leaky water closets	8
Leaky roofs	1
Untrapped sinks	2
Open back vent connections	1
Hens removed	9
Pigs removed	26
Pigeons removed	1
Rubbish in yards	102
Rubbish in cellars	20
No water supply to tenements	9
No water supply to water closets	18
Unsealed sink traps	3
Untrapped sinks	2
Ceilings whitewashed	3
Plaster off ceilings	2
Dilapidated woodwork around water closets	5
Dilapidated woodwork around sinks	1
Open drains	1
Insufficient water supply to water closets	14
Filthy water closet compartments	1
Overflowing dry wells	2
Surface drainage	3
Privy vaults cleaned	5
Filthy stables	1
No cover on sink traps	1
Clogged ash chutes	2
Broken cover on sink traps	1
Broken water closet bowls	2
Skunks removed from premises	1
Filthy sheds	1
Defective chimney flues	2

REPORT OF FUMIGATOR

LOWELL, MASS., JAN. 1, 1920.

*Board of Health,
Lowell, Mass.*

GENTLEMEN :—

Following is a report of the fumigating work done by me during the year 1919:—

Houses	654
Rooms	1238
Tuberculosis	139
Smallpox	1

Respectfully submitted,

SPENCER D. BROWN,
Fumigator.

REPORT OF INSPECTOR OF MEATS AND PROVISIONS

LOWELL, MASS., JAN. 1, 1920.

*Board of Health,
Lowell, Mass.*

GENTLEMEN:—

The following is a report of the work done by the Inspector of Meat and Provisions for the year 1919:—

Number of inspections made of stores 3018
Condemned as unfit for food:

1 leg beef, 1 leg pork, 12 lbs. sausages, 78 lbs. beef and 9200
lbs. of potatoes.

Inspection of carcasses at time of slaughter

Number of carcasses of swine 262

Number of carcasses of cattle 1

Condemned as unfit for food:

8 carcasses of swine.

Respectfully submitted,

C. A. HAMBLET, M. D. V.,
Inspector of Meats and Provisions.

MEDICAL INSPECTION PRIVATE SCHOOLS, 1919

Number of visits made	237
Number examined	4277
Number advised	791
Number excluded	14

Children were found suffering from impetigo, tonsilitis, sore throats, scabies, large tonsils, coryza, bronchitis, defective vision, pediculosis, adenoids, suppurating glands of neck, diphtheria, scarlet fever. Many cases of non-vaccination were found, and sent to City Hall to be vaccinated. Talks were given by the school physicians on hygiene, care of teeth, etc.

CASES OF CONTAGIOUS DISEASES REPORTED

	1919	1918	1917
Diphtheria	234	186	438
Scarlet Fever	327	99	77
Measles	168	501	360
Typhoid Fever	31	21	37
Smallpox	1	2	1
Cerebro-Spinal Meningitis	8	19	17
Infantile Paralysis	8	7	9
Tuberculosis	288	256	244
Influenza	1004	7394	0

DEATHS FROM CONTAGIOUS DISEASES

	1919	1918	1917
Diphtheria	23	17	24
Scarlet Fever	6	4	3
Measles	4	8	4
Typhoid Fever	4	2	7
Smallpox	0	0	0
Cerebro-Spinal Meningitis	6	9	10
Infantile Paralysis	3	5	2
Tuberculosis	143	182	177
Influenza	27	164	3

CASES OF DIPHTHERIA REPORTED TO THE BOARD
OF HEALTH, 1919

	Cases Reported	Deaths
January	19	2
February	18	1
March	32	3
April	28	2
May	38	4
June	11	0
July	4	3
August	5	1
September	11	1
October	26	2
November	25	2
December	17	2
	234	23

Mortality of Diphtheria, 9.8 per cent.

MORTALITY OF DIPHTHERIA

Antitoxin Treatment

1895	44.0	per cent
1896	43.0	
1897	23.0	
1898	23.0	
1899	18.0	
1900	10.0	
1901	12.0	
1902	9.5	
1903	10.5	
1904	11.0	
1905	6.0	
1906	9.0	
1907	7.5	
1908	7.0	
1909	12.5	
1910	9.2	
1911	9.7	
1912	10.4	
1913	9.9	
1914	16.3	
1915	10.6	
1916	13.3	
1917	5.5	
1918	9.1	
1919	9.8	

SCARLET FEVER

	1919	1918	1917
Cases reported	327	99	77
Deaths	6	4	3
Per cent total cases	1.8	4.0	3.9

	Cases Reported	Deaths
January	22	0
February	25	0
March	27	0
April	21	1
May	23	0
June	13	0
July	12	0
August	5	0
September	16	0
October	36	1
November	62	1
December	65	3
	327	6

MEASLES

	Cases Reported	Deaths
January	33	0
February	7	0
March	25	0
April	33	0
May	30	2
June	19	2
July	12	0
August	2	0
September	1	0
October	1	0
November	1	0
December	4	0
	168	4

INFANTILE PARALYSIS

	Cases Reported	Deaths
January	0	0
February	0	0
March	0	0
April	1	1
May	0	0
June	0	0
July	1	0
August	1	1
September	1	0
October	3	1
November	0	0
December	1	0
	8	3

CEREBRO-SPINAL MENINGITIS

	Cases Reported	Deaths
January	1	0
February	0	0
March	0	0
April	0	0
May	0	0
June	2	2
July	1	0
August	2	2
September	1	1
October	1	1
November	0	0
December	0	0
	8	6

BOARD OF HEALTH

TUBERCULOSIS

	Cases Reported	Deaths
January	24	17
February	17	14
March	18	14
April	13	17
May	23	16
June	33	11
July	31	10
August	34	14
September	53	3
October	14	13
November	13	5
December	15	9
	288	143

TYPHOID FEVER

	Cases Reported	Deaths
January	0	0
February	1	0
March	1	0
April	0	0
May	1	0
June	0	0
July	0	0
August	14	1
September	10	1
October	3	1
November	0	0
December	1	1
	31	4

TYPHOID FEVER

		Population	Cases Reported	Deaths
Total	1919	107,978	31	4
Total	1918	107,978	21	2
Total	1917	107,978	37	7
Total	1916	107,978	61	13
Total	1915	106,294	112	18
Total	1914	106,294	85	11
Total	1913	106,294	65	11
Total	1912	106,294	86	10
Total	1911	106,294	61	7
Total	1910	106,294	186	22
Total	1909	96,380	91	11
Total	1908	96,380	188	24
Total	1907	96,380	73	9
Total	1906	96,380	30	7
Total	1905	94,889	56	17
Total	1904	104,402	48	17
Total	1903	101,959	238	26
Total	1902	99,574	83	16
Total	1901	94,969	70	18
Total	1900	94,969	85	17
Total	1899	90,114	57	17
Total	1898	87,000	119	24
Total	1897	87,000	105	18
Total	1896	95,700	178	36
Total	1895	84,359	172	33
Total	1894	83,026	282	50
Total	1893	81,694	160	53
Total	1892	80,361	373	75
Total	1891	79,029	293	77
Total	1890	77,696	454	123

A decrease from 1.59 per thousand inhabitants to .03 in thirty years.

VITAL STATISTICS

	1919	1918	1917
Deaths, male	828	1272	1001
Deaths, female	881	1201	937
	1709	2473	1938
Children under 1 year	377	525	459
Children under 2 years	435	684	532
Children under 5 years	515	797	621
Per cent of total deaths under 5 years	30.0	32.0	32.0

BIRTHPLACE

	Of Deceased	Of Parents
Lowell	771	321
Massachusetts	107	179
Other states	256	454
Ireland	202	779
Canada	166	614
Great Britain	90	254
Other countries	94	581
Unknown	23	236
	1709	3418

PLACES OF INTERMENT

Catholic (St. Patrick's) Cemetery	720
Edson	257
Westlawn	148
Lowell	52
St. Joseph's	367
St. Peter's	3
Other cemeteries	10
Removed from city	152
	1709

PLACES OF DEATH

Ward 1	114
Ward 2	174
Ward 3	162
Ward 4	126
Ward 5	120
Ward 6	283
Ward 7	129
Ward 8	139
Ward 9	114
Chelmsford St. Hospital	97
Lowell Hospital	79
Lowell General Hospital	60
St. John's Hospital	103
Cheney-Allard Hospital	5
Cottage Hospital	1
Coram Hospital	2
Lowell Jail	1
	1709

DEATH RATE

Population, census	1890	77,696	1,959	25.21
estimated	1891	79,029	1,972	24.95
estimated	1892	80,361	2,224	27.67
estimated	1893	81,694	2,094	25.62
estimated	1894	83,026	1,775	21.28
census	1895	84,359	1,857	22.01
estimated	1896	85,700	1,901	22.18
estimated	1897	87,000	1,855	21.33
estimated	1898	87,000	1,808	20.78
estimated	1899	90,114	1,848	20.50
census	1900	94,969	1,849	19.47
estimated	1901	94,969	2,038	21.45
estimated	1902	99,574	1,935	19.43
estimated	1903	101,959	1,898	18.61
estimated	1904	104,402	1,736	16.61
census	1905	94,889	1,899	20.02
census	1906	96,380	1,918	19.90
census	1907	96,380	2,063	21.40
census	1908	96,380	1,963	20.36
census	1909	96,380	1,885	19.55
census	1910	106,294	2,100	19.76
census	1911	106,294	1,925	18.11
census	1912	106,294	1,891	17.79
census	1913	106,294	1,749	16.45
census	1914	106,294	1,768	16.63
census	1915	106,294	1,820	17.12
census	1916	107,978	1,964	18.19
census	1917	107,978	1,938	17.95
census	1918	107,978	2,473	22.90
census	1919	107,978	1,709	15.82

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CAUSES OF DEATH	Total Mortality for 1919	AGE																SEX										
																		Males	Females									
		Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years under 5 years	Total under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over	Males	Females	
72. Tetanus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
73. Chorea	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
74. Hysteria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
74b. Other affections of the nervous system	2	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	
75. Diseases of the eye and ap- pendages	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	
76. Diseases of the ear	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	
Infantile Paralysis	3	1	..	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1		
Total of the nervous system, etc.	129	8	5	2	2	17	4	1	1	2	2	3	6	13	8	14	13	18	11	9	6	1	..	..	56	73		
III. Diseases of the Circulatory Apparatus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
77. Pericarditis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
78. Endocarditis, acute	74	..	1	1	3	1	3	1	3	1	3	4	3	7	6	14	9	4	2	9	1	..	..	..	25	49		
79. Organic diseases of the heart	95	2	1	..	..	3	3	5	2	..	5	7	17	3	5	11	7	8	9	3	3	1	..	..	41	54		
80. Angina pectoris	10	..	..	..	..	..	..	..	..	1	1	2	..	1	2	..	1	3	..	..	..	..	..	..	6	4		
81. Affections of the arteries (athe- roma aneurism, etc.)	161	..	..	..	..	..	..	..	..	2	1	..	3	3	10	23	25	30	26	16	17	5	..	..	71	90		

CAUSES OF DEATH	Total Mortality for 1919	AGE																								SEX	
																										Males	Females
		Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	Total under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over		
82. Embolism and thrombosis.....	14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	5	
83. Affections of the veins (varices, hemorrhoids, phlebitis, etc.)....																											
84. Affections of the lymphatic system (lymphangitis, etc.).....																											
85. Hemorrhages	1													1												1	
86. Other affections of the circulatory apparatus																											
Total of circulatory apparatus	355	3	1	1	1	1	7	4	8	4	4	10	5	15	23	18	24	48	42	42	41	28	22	6	153	202	
IV. Diseases of the Respiratory Apparatus																											
87. Diseases of the nasal fossae.....																											
88. Affections of the larynx.....	4	1	2	1	1	4																				4	
89. Affections of the thyroid body..	1	1	1	1	1	1																				1	
90. Bronchitis, acute.....	36	22	8	1	1	32										1				1	1	1	1	1	1	18	
91. Bronchitis, chronic.....	12	1	1	1	1	2					1		1	1	1			2	1	3	1	1	1	1	1	6	
92. Broncho pneumonia.....	120	26	11	2	7	2	48	2	4	1	3	8	11	8	2	7	6	3	6	1	5	1	1	2	1	53	67

CAUSES OF DEATH	Total Mortality for 1919	AGE																	SEX								
																			Males	Females							
		Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years			65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over	
93. Pneumonia	94	13	4	4	1	1	23	3	2	1	2	5	7	8	1	5	3	6	6	7	10	1	3	...	1	44	50
94. Pleurisy	4	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	1	...	...	...	...	...	...	...	...	2	2
95. Pulmonary congestion and apoplexy	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	2
96. Gangrene of the lung	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
97. Asthma	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...
98. Emphysema, pulmonary	3	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	1	2
99. Other diseases of the respiratory apparatus (phthisis excepted)	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	2	...
Total respiratory apparatus...	279	63	25	8	10	4	110	5	6	2	6	14	20	19	5	12	12	9	15	10	20	3	5	4	2	132	147
V. Diseases of the Digestive Apparatus																											
100. Affections of the mouth and its adnexa	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
101. Affections of the pharynx	5	...	...	1	1	2	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1
102. Affections of the esophagus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
103. Ulcer of the stomach	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...

CAUSES OF DEATH	Total Mortality for 1919	AGE																SEX										
																		Males	Females									
		Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	Total under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over			
104. Other affections of the stomach and their adnexa.....	11	5	1	1	...	6	1	1	...	1	...	1	...	...	...	...	...	...	2	...	1	...	...	...	...	...	6	5
105. Diarrhea and enteritis (under two years).....	124	114	13	...	...	124	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	74	50
105a. Diarrhea and enteritis, chronic....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
106. Diarrhea and enteritis (two years and over).....	6	...	1	1	1	3	1	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	4
107. Parasites, intestinal.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
108. Hernia, intestinal obstructions..	13	...	...	...	...	...	3	...	...	...	...	...	...	2	...	2	1	1	2	...	1	...	...	1	...	1	4	9
109. Other affections of the intestines	6	1	...	...	1	1	...	1	1	...	1	...	1	1	...	1	1	...	...	...	...	...	...	...	...	...	2	4
110. Icterus, grave.....	3	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	1	...	1	...	...	...	...	...	2	1
111. Hydatid tumors of the liver.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1112. Cirrhosis of the liver.....	4	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	1	...	1	...	...	...	...	...	...	...	4	...
1113. Biliary calculi.....	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	1	...	1	...	...	...	...	1	3
1114. Other affections of the liver....	6	...	...	...	...	...	...	1	...	...	...	...	...	1	1	1	1	...	...	1	...	1	...	...	...	1	5	...
1115. Affections of the spleen.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1116. Peritonitis, simple (puerperal excepted)	10	...	...	...	...	...	1	...	1	2	...	1	2	1	1	1	1	...	1	...	...	...	...	...	...	...	5	5

[illegible]

[illegible]

[illegible]

[illegible]

CAUSES OF DEATH	AGE																								SEX		
	Total Mortality for 1919																								Males	Females	
	Under 1 year	1 year and under 2 years	2 years and under 3 years	3 years and under 4 years	4 years and under 5 years	Total under 5 years	5 years and under 10 years	10 years and under 15 years	15 years and under 20 years	20 years and under 25 years	25 years and under 30 years	30 years and under 35 years	35 years and under 40 years	40 years and under 45 years	45 years and under 50 years	50 years and under 55 years	55 years and under 60 years	60 years and under 65 years	65 years and under 70 years	70 years and under 75 years	75 years and under 80 years	80 years and under 85 years	85 years and under 90 years	90 years and over			
169. Insolation	1					1											1								1		
170. Freezing																											
171. Electrical disturbances																									1		
172. Accidental submersion.....	1					1	2	1						1					1						7		
173a. Inanition																											
174. Absorption of deleterious gases (suicide excepted)								1		1		1	1	1		4				1					7		
175. Other acute poisonings.....								1		1				2	1										3		
176. Other external violence.....								1	2								1		1						3		
Total affections, etc.....	93	1	2	5	4	14	12	5	4	7	4	5	3	9	5	7	6	1	3	4	2	1	1		67		
XIV. Ill-defined Diseases																									26		
177. Dropsy																											
178. Sudden death																											
179. Non-specified or ill-defined causes of death.....	3	2				2			1																1		
Total ill-defined diseases	3	2				2		1																	1		
Grand Total for all causes	1709	377	58	32	27	21	515	50	23	35	49	62	65	64	81	90	85	92	113	117	97	72	50	35	14	828	881

COLLECTION OF ASHES, 1919

	Loads
January	3,740
February	3,143
March	3,255
April	3,110
May	2,654
June	2,267
July	2,255
August	1,945
September	2,172
October	2,549
November	2,822
December	3,717
	33,629

COLLECTION OF SWILL, 1919

	Loads
January	292 $\frac{1}{2}$
February	274
March	261
April	268 $\frac{1}{2}$
May	285 $\frac{1}{2}$
June	302 $\frac{1}{2}$
July	324
August	405
September	449
October	358 $\frac{1}{2}$
November	286 $\frac{1}{2}$
December	320
	3,827

SWILL ACCOUNT, 1919

January	\$318.21
February	311.31
March	282.55
April	288.17
May	310.65
June	335.67
July	350.06
August	451.27
September	497.54
October	382.55
November	295.03
December	338.76
Swill Licenses	595.00
	\$4,756.77

498 loads of swill were charged to the City Farm in 1919.

108 swill licenses were issued during the year.

FINANCIAL STATEMENT—EXPENDITURES
PAYROLLS—OFFICE

January	\$944.79
February	1,120.24
March	1,269.05
April	1,093.64
May	1,424.80
June	1,161.27
July	1,324.73
August	1,612.60
September	1,295.79
October	1,442.86
November	1,882.21
December	1,874.58
	\$16,446.56

PAYROLLS—YARD

January	\$5,860.52
February	6,530.90
March	8,019.60
April	6,307.99
May	7,920.67
June	6,321.82
July	7,290.05
August	8,991.35
September	6,545.27
October	6,646.97
November	8,531.11
December	8,596.35
	\$87,562.60

ANALYSIS OF OFFICE AND YARD PAYROLLS, 1919

OFFICE

Agent	\$2,151.34
Fumigator	1,405.78
Contagion inspector or general inspector	1,327.00
Tenement house inspector	440.00
Tuberculosis examining physician	400.11
Meat inspector	1,000.56
Plumbing inspectors	2,927.00
Vaccinating physician	400.11
Health inspector	1,291.21
Registrar	1,183.41
Clerk	20.00
Nurses	3,311.06
Attending physician G. U. clinic	105.49
Nurses at Cottage Hospital	366.78
Cook at Cottage Hospital	90.71
Wages paid John Gleason during quarantine for Scarlet Fever	26.00
Salaries for 3 members of Board	1,500.00
Salary of bacteriologist	868.96
	\$18,815.52

YARD

Ashes	\$41,776.63
Swill	16,571.10
Dumps and alleys	8,184.48
Stable	5,568.11
Foreman	1,935.69
Blacksmith	3,008.53
Market refuse	4,414.54
Yardman	1,566.34
Wheelwright	1,377.44
Vacations	2,647.49
Smallpox nurse	96.00
Edward Dean (reimbursement)	416.25
	\$87,562.60

ANALYSIS OF BILLS, 1919

HEALTH OFFICE SUNDRIES

Advertising	\$17.06	
Bacteriological department	372.45	
Car tickets	512.10	
Books	49.25	
Electrical work	10.66	
Express	39.05	
Filing case	5.75	
Fumigating supplies	134.40	
Investigating deaths	67.00	
Nurses' bags and pins	22.75	
Printed supplies	303.31	
Printing annual report	202.00	
Rent of P. O. Box	2.00	
Stamps and stamped envelopes	127.25	
Sundries	179.92	
Traveling expenses	25.09	
Telephone	24.30	
Vaccinations	49.00	
Office expenses		\$2,143.34
Medicine	\$11.75	
Medical services	162.75	
Boston, City of	200.00	
Burials	6.50	
Fuel	2.00	
Infantile paralysis clinic	63.03	
Lowell V. D. Clinic	42.00	
Tewksbury Infirmary (Gonorrhoea)	603.30	
Telephone Tuberculosis Hospital	.35	
Electric light, Contagious Hospital	22.96	
Blankets	100.00	
Massachusetts Eye and Ear Infirmary	10.00	
Typhoid fever inspection	8.00	
Provisions	20.01	
Swab wires for diphtheria	15.15	
Culture boxes	35.00	
Tongue depressors	7.88	

Smallpox Hospital expenses:

Fire extinguishers	\$25.50	
Medicine	5.20	
Medical services	55.00	
Provisions	82.44	
Sundries	10.69	
Telephone	60.55	
Ice	3.40	242.78

Cottage Hospital expenses:

Taxis	\$8.50	
Board from Chelmsford St. Hospital	227.00	
Medicine	1.50	
Provisions	84.73	
Medical services	177.50	
Sundries	16.39	515.62

Curtain rings	.70	
---------------------	-----	--

Other contagious expenses except tuberculosis \$2,069.78

Boston Consumptives' Hospital	\$60.00	
Clinton, City of	81.00	
Cambridge, City of	480.50	
Provisions	1,566.85	
Haverhill, City of	12.00	
Medicine	171.44	
Chelmsford St. Hospital	783.01	
Lawrence Tuberculosis Hospital	2,082.00	
North Reading Sanatorium	2,029.86	
Ambulances and transportation	85.44	
Westfield State Sanatorium	1,255.31	
Tewksbury Infirmary	342.86	
Lakeville State Sanatorium	189.15	
Rutland Sanatorium	622.84	
Medical services	1.00	
Burials	55.70	
Sputum boxes	15.00	
Wire Fillers	105.00	
Filing case	5.75	
Cards	25.00	

Tuberculosis expenses \$9,969.71

Gem table	\$15.75	
Pail	1.25	
Barnstead still	32.80	
Electrical work	28.78	
Rubber Tubing	5.69	

BOARD OF HEALTH

57

Laundry	5.19	
Brackets	2.00	
Stamps	6.00	
Rubber stamps	6.10	
Surgical supplies and medicine	306.60	
Sheets, towels, etc.	27.78	
G. U. Clinic		437.94
Grand total office sundries		\$14,620.77

YARD SUNDRIES, 1919

Ash covers	\$118.50
Blacksmiths' supplies	897.16
Bran	165.00
Compensation during U. S. service	166.62
Corn	65.00
Coal	606.37
Electrical work	74.54
Electric light	136.10
Hardware	115.23
Gas	82.54
Harness repairing and supplies	776.07
Hay	9,817.49
Meal	57.00
Laundry	604.00
Lumber	101.89
Medicine	25.30
Oats	7,944.36
Oakum	1.10
Printed supplies	32.50
Pasturing horse	14.00
Repairing carriage	14.15
Sundries	218.71
Straw	221.33
Use of horses	2,172.00
Canvas covers	98.75
Telephone	10.61
Repairs	9.90
Shovels	33.00
Veterinary services	65.00
New horses	760.00
Water	99.57
	\$25,503.79

MILK DEPARTMENT

SALARIES, 1919

Collector	\$1,206.63
Inspector	1,935.00
	\$3,141.63

SUNDRIES

Bottles	92.38
Directory	10.00
Telephone	62.40
Motor hire	81.00
Express	.34
Printing	17.00
Thermometer	6.34
Traveling expenses	5.49
Stamped envelopes	55.00
Sundries	34.73
Subscription to paper	11.00
Towels	18.00
Corks	43.75
Inspection Babcock	7.70
Vitriol	12.40
	\$457.53

INCOME TRANSFERRED TO GENERAL FUND, 1919

HEALTH DEPARTMENT

Swill sold	\$4,161.77	
Swill licenses	595.00	
		\$4,756.77
Genito-Urinary clinic fees		45.00
Denatured alcohol licenses		18.00
Commonwealth of Mass. for contagious diseases		1,450.40
City of Brockton for contagious diseases		14.20
Dracut, Town of, for contagious diseases		25.71
R. J. Martin, sale of manure		348.25
Costos Vlahakes, sale of manure		137.62
Lillian Hale, board at Cottage Hospital		53.57
Delia Hart, board at Cottage Hospital		21.43
Mrs. D. Emerson, board at Cottage Hospital		27.86
Commonwealth of Mass for G. U. clinic		935.00
		\$7,833.81

MILK DEPARTMENT

Milk and oleomargarine licenses	233.50
---------------------------------------	--------

COST OF HEALTH DEPARTMENT, 1919

EXPENDITURES

Salaries of board	\$1,500.00
Salary of bacteriologist	868.96
Payrolls, office	16,466.56
Bills, office	14,620.77
Yard labor	87,562.60
Yard sundries	25,503.79
Milk department salaries	3,141.63
Milk department sundries	457.53
Medical inspection private schools	800.00
	\$150,901.84

APPROPRIATIONS

Health office	\$30,000.00
Health yard	102,000.00
Milk department	3,200.00
Medical inspection private schools	800.00
	\$136,000.00
Additional appropriations	\$10,060.00
Department transfers	820.64
Overdrawn	4,021.20
	\$150,901.84

	Original Appropriation	Supplementary Appropriation	Special Appropriation	Transfers	Overdrawn	Expenditures
HEALTH OFFICE						
Salaries:						
Board						\$ 1,500.00
Bacteriologist						868.96
Pay Rolls						16,446.56
						<u>\$ 18,815.52</u>
Bills						14,620.77
	\$30,000.00	\$1,200.00	\$935.00		\$1,301.29	<u>\$ 33,436.29</u>
HEALTH YARD						
Labor						87,562.60
Sundries						25,503.79
	102,000.00	7,700.00		\$820.64	2,545.75	<u>\$113,066.39</u>
MILK DEPARTMENT						
Salaries						3,141.63
Sundries						457.53
	3,200.00	225.00			174.16	<u>\$3,599.16</u>
MEDICAL INSPECTION PRIVATE SCHOOLS						
Salaries	800.00					800.00
	<u>\$136,000.00</u>	<u>\$9,125.00</u>	<u>\$935.00</u>	<u>\$820.64</u>	<u>\$4,021.20</u>	<u>\$150,901.84</u>

Year	Popula- tion	Expenditures	Revenue	Net Cost	City's Valuation	Taxation per Capita
1894	83,026	\$a57,073.73	\$318.43	\$56,755.03	\$69,091,536	.63
1895	84,359	46,324.04	570.80	45,753.24	68,885,732	.54
1896	85,700	45,587.11	265.57	45,321.54	69,910,472	.53
1897	87,000	48,551.84	2,369.99	46,181.85	70,389,280	.53
1898	87,000	41,026.78	3,229.02	37,779.76	70,977,303	.43
1899	90,114	40,830.23	3,796.05	37,034.18	71,255,587	.41
1900	94,969	b46,266.11	3,647.03	42,619.00	71,529,515	.44
1901	94,969	46,673.41	4,585.26	42,088.15	71,674,588	.44
1902	95,574	c54,815.33	6,103.87	48,711.46	71,903,757	.48
1903	101,959	d46,168.01	4,085.12	42,682.89	72,004,028	.41
1904	104,402	e46,451.97	4,137.31	42,314.66	71,614,907	.40
1905	94,889	f51,707.39	3,727.41	47,979.98	71,645,718	.50
1906	96,380	54,096.00	4,566.66	49,529.34	74,325,775	.51
1907	96,380	57,763.79	6,808.20	50,955.59	76,079,750	.53
1908	96,380	g57,342.61	6,418.50	50,924.11	77,858,891	.53
1909	96,380	56,346.33	6,763.73	h49,582.60	79,176,837	.51
1910	106,294	h65,911.31	h6,770.56	h59,140.75	80,094,803	.56
1911	106,294	i73,425.97	i6,762.36	i66,663.61	82,166,742	.62
1912	106,294	j74,136.25	j7,031.59	j67,104.66	84,797,348	.63
1913	106,294	k91,635.29	7,042.53	84,592.76	87,277,643	.80
1914	106,294	l82,448.34	8,040.56	74,407.78	89,294,001	.70
1915	106,294	m88,841.59	6,492.16	82,349.43	92,716,047	.77
1916	107,978	n94,305.92	7,112.16	87,193.76	94,503,423	.80
1917	107,978	o104,327.19	7,379.26	96,947.93	90,820,901	.90
1918	107,978	p136,626.32	7,465.93	129,160.39	98,939,125	1.19
1919	107,878	q150,901.84	8,067.31	142,834.53	107,315,763	1.32
a.	Smallpox and Swill Cremation, \$12,708.25.					
b.	Smallpox, \$4,739.67					
c.	Smallpox, 6,626.20					
d.	Smallpox, 1,000.00					
e.	Smallpox, 1,010.02					
f.	Smallpox, 3,297.08					
g.	Smallpox, 291.64					
h.	This includes expenditures and revenue of Milk Dept.					
i.	"	"	"	"	"	"
j.	"	"	"	"	"	"
k.	"	"	"	"	"	"
l.	"	"	"	"	"	"
m.	"	"	"	"	"	"
n.	"	"	"	"	"	"
o.	"	"	"	"	"	"
p.	"	"	"	"	"	"
q.	"	"	"	"	"	"

INDEX

Organization	3
Report	5
Report of Work Done in Bacteriological Laboratory, 1919	8
Report of Milk Inspector.	11
Report of Examining Physician for Tuberculosis Clinic	12
Report of Tuberculosis Nurse.....	14
Report of Child Welfare Nurses for 1919.....	15
Report of Attending Physician Genito-Unitary Clinic	19
Report of Plumbing Inspectors	21
Report of Fumigator.....	23
Report of Inspector of Meats and Provisions.....	24
Medical Inspection, Private Schools, 1919.....	25
Cases of Contagious Diseases Reported.....	26
Mortality of Diphtheria.	27
Scarlet Fever.....	28
Measles	28
Infantile Paralysis	29
Cerebro-Spinal Meningitis.....	29
Tuberculosis.....	30
Vital Statistics.....	32
Birthplace.....	33
Places of Interment.....	33
Places of Death	34
Mortality Report for 1919	35
Collection of Ashes, 1919	51
Collection of Swill, 1919.....	52
Financial Statement Expenditures, Payrolls of office	53
Analysis of office and Yard Payrolls, of 1919, 1919	54
Analysis of Pills, 1919.....	53
Milk Department	58
Income Transferred to General Fund	59
Cost of Health Department, 1919	60
Appropriations	61
Summary, 1919	62

EIGHT ANNUAL REPORT
OF
FIRE COMMISSIONER
OF THE FIRE DEPARTMENT
CITY OF LOWELL



FOR THE YEAR
NINETEEN HUNDRED AND NINETEEN

REPORT

LOWELL, MASS., January 1, 1920.

TO THE MUNICIPAL COUNCIL OF THE CITY OF
LOWELL:

GENTLEMEN:—I herewith submit the eighth annual report of the Commissioner of the Fire Department for the year ending December 31st, 1919.

The following statement will show the receipts and expenditures for the year:

RECEIPTS

Appropriation	\$250,000.00
Extra appropriation for increase from July 1st	17,300.00
Transfers	121.00
Transferred from general treasury	850.52
	—————\$268,271.52

EXPENDITURES

Fire Alarm	697.33
Automobile repairs and upkeep	6,537.45
Chemicals	220.09
Coal and wood	8,758.73
Furniture and bedding	165.32
Hose	2,416.94
Freight and express	63.56
Harness repairs	164.25
Hay and grain	8,808.49
Laundry	969.69
Lighting	2,207.26
Printing and stationery	243.20
Repairs	150.12
Shoeing	1,406.97
Soap	164.83
Sundries	1,215.77
Telephone	311.48
Veterinary	72.72

Wagon repairs	236.48	
Water bills	765.18	
	\$ 35,575.86	
Salaries and wages	232,695.66	
		<u><u>\$268,271.52</u></u>

Details of the general work of the department will be found in the Chief's report which follows.

Respectfully submitted,

CHARLES J. MORSE,

Commissioner of Fire Department

CHIEF'S REPORT

Chief's Office, Central Fire Station,
Lowell, Mass., January 1, 1920.

To the Commissioner of Water Works and Fire Protection
of the City of Lowell.

Dear Sir: In compliance with the City ordinance, I have the honor of submitting for your consideration the annual report of the condition and operation of the Fire Department for the year ending December 31st, 1919.

SALARIES OF MEMBERS OF THE FIRE DEPARTMENT

Chief Engineer	\$2,500.00 per annum
1st Assistant Chief	6.60 per day
2nd Assistant Chief	6.05 per day
3rd Assistant Chief	6.05 per day
Assistant Engineer	450.00 per annum
Call Men	250.00 per annum
Permanent Men	4.60 per day
Captains of Companies (permanent) ..	5.18 per day
Lieutenants of Companies (permanent)	4.90 per day
Engineers of Steamers (permanent)	4.90 per day
Electrician	5.45 per day
Linemen	32.20 per week

FORCE

The Department is divided into two classes, Permanent and Call. The Permanent force consists of:

1 Chief Engineer	13 Drivers
3 District Chiefs	84 Hosemen
1 Fire Alarm Operator	30 Laddermen
2 Linemen	10 Patrolmen
3 Telephone Operators	4 Engineers of Steamers
	1 Chauffeur

A total of 152, of which 19 are Captains and 17 Lieutenants.

The Call force consists of:

1 Assistant Engineer 3 Laddermen
8 Hosemen
A total of 12.

This makes a total of 164 divided into companies as follows:

6 Steam Fire Engine Companies.
6 Horse Hose Companies, 1 with Chemical Engine attached.
4 Hook and Ladder Companies, 1 with Chemical Engine attached.
1 Protective Company.

CHANGES DURING THE YEAR

Appointed permanent	12
Demoted	11
Died, permanent	5
Died, call	1
Died, pensioners	2
Promoted	3
Reappointed	6
Suspended indefinitely	6
Resigned from call force	1
Resigned from permanent force	2

APPARATUS

The apparatus of this department is kept in the best possible condition and consists at present of

Chief's Automobile	1
Assistant Chiefs' Automobiles	2
Electrician's Automobile	1
Combination Motors, Chemical and Hose Wagons...	6
Triple Combinations	2
Auto Patrol Wagon	1
Service Car	1
Steam Fire Engines	5
Two Horse Hose Wagons	6
Ladder Trucks	4
Chemical Engines	2
Hale Water Tower	1
Fuel Wagons	8
Hose Pumps	3
Fire Extinguishers	30

RESERVE APPARATUS

Electrician's Wagon	1
Electrician's Sleigh	1
Inspector of Repairs' Wagon	1
Two Horse Hose Wagons	3
Ladder Truck	1

HORSES

There are at the present time in the servire of the department thirty-four horses.

HARNESS

The harness in use in the department at the present time consists as follows:

Sets of double swinging harness	9
Sets of three horse swinging harness	6

TELEPHONE

The telephone system is the same that was installed in 1913, consisting of one thirty line switchboard located at the Palmer Street Station, which is connected with the central office of the New England Telephone and Telegraph Company by two toll lines, and also the seventeen different fire stations, the Chief's office and residence, the two District Chiefs' residences and battery room with eleven local lines.

PROTECTIVE DEPARTMENT

This department is maintained by the City and consists of ten permanent men. They have responded to two hundred and ninety alarms; in service one hundred and thirty-one and three-quarters hours; spread one hundred and fifty-one covers; used ninety-nine extinguishers and forty-five tanks; raised four hundred and fifty feet of ladders.

FIRE PREVENTION.

A systematic inspection of buildings is made by the men of the city. Each company has a certain district to inspect, and each inspection is recorded on a printed slip with report of conditions found. These slips are turned over to the Chief of the Department and when the conditions found are considered dangerous, letters are sent to both owners and tenants to have said conditions remedied. 15,813 buildings were inspected during the year by the different companies.

FIRES AND LOSSES.

The whole number of alarms during the year ending December 31st, 1919 was nine hundred and forty-two (942.) Two hundred and twenty-one (221) were given from signal boxes; three hundred and seventy-five (375) telephones; two hundred stills (200); six (6) automatics; nine (9) exposures; and one hundred and thirty-one (131) reported fires. The "No School" signal was given fourteen (14) times. There were three hundred and eighty-three (383) fires extinguished by chemicals alone and one hundred and fifty-six (156) where water was used. The remaining number were extinguished by other means or had been put out before the arrival of the department. One hundred and eight (108) were in brick or stone buildings; three hundred and fifty-one (351) in frame buildings, and three hundred and fifty-two (352) other than building fires. The reported fires were mostly in frame buildings.

The whole amount of loss, except the reported fires, was two hundred twenty-five thousand, five hundred sixty-two dollars and ninety-five cents (\$225,562.95.) Insurance, one million, five hundred eighty-seven thousand, three hundred twenty-four dollars and eight cents (\$1,587,324.08); insurance paid, two hundred five thousand, one hundred one dollars and fifty-three cents (\$205,101.53). Loss above insurance, twenty thousand, four hundred sixty-one dollars and forty-two cents (\$20,461.42.) Valuation, one million, seven hundred sixty-seven thousand, six hundred fifty-seven dollars and eighty cents (\$1,767,657.80). The reported loss was six thousand, five hundred seventy-nine dollars and ninety-seven cents (\$6,579.97); insurance nine hundred twenty thousand, eight hundred forty-three dollars (\$920,843); valuation, nine hundred ninety-nine thousand, fifty dollars (\$999,050).

There have been seven (7) alarms out of the city, to which some part of the department has responded, for which no insurances are kept; Chelmsford, 1, Dracut 4, East Chelmsford 1, Tyngsboro 1.

There have been twenty-six (26) fires where the loss was \$1,000 and over.

February 3rd, 45 Thirteenth Street, owned and occupied by J. M. White, loss, \$2,931.20.

February 6th, 69 Dummer Street, owned by D. A. Sakellarios and occupied by M. Stefanopoulos, loss \$2, 655.

February 22nd, 338 42 Market Street, owned by D. A. Sakellarios and occupied by several, loss \$1,011.

February 27th, 150 Market Street, owned and occupied by Burton H. Wiggin, loss \$1,029.04.

March 18th, Merrimack Sq. owned by W. H. Howe and occupied by several, loss \$1,807.50.

March 30th, 508-34 Merrimack Street, owned by E. A. Simpson and occupied by Sarre Bros., Amedee Caron, J. A. Desrosiers & Co., et al, loss \$64,851.12.

April 2nd, Hale Street, owned and occupied by Ziskind and Cohen, loss \$1,647.25.

May 9th, Rockingham Street, owned by J. Robinson and occupied by Hamilton & Hersey, loss \$18,313.80.

May 9th, 9-17 Rockingham Street, owned by R. Sykes and occupied by W. F. Lindquist and Lawrence Street Methodist Church, loss \$1,723.70.

May 25th, 21-7 Fenwick Street, owned and occupied by George Poulakos et al, loss \$1,505.00.

June 23rd, Phoenix Avenue, owned by E. Cawley and occupied by Northern Waste Company, loss \$55,197.00.

July 12th, 104 Salem Street, owned by I. Bernstein and occupied by E. A. Simard, loss \$1,002.00.

July 17th, 162 Avon Street, owned and occupied by M. A. Kelley, loss \$1,110.16.

July 18th, 164 Andover Street, owned and occupied by M. Ortner, loss \$2,020.00.

July 20th, Jackson Street, owned by Bay State Storage Company and occupied by F. M. Bill Company, loss \$5,497.90.

August 7th, 21 Adams Street, owned by J. and Mary Moria and occupied by J. K. Vatro, loss \$1,033.25.

August 22nd, 28 East Avenue, owned and occupied by Costas Carakases, loss \$2,200.00.

August 31st, Chelmsford Street, owned and occupied by the City as Poor Farm, loss \$4,598.00.

September 27th, 36 Smith Street, owned by T. McGagh and occupied by several, loss \$1,916.00.

October 22nd, 9 Flood's Alley, owned and occupied by E. Ziavras, loss \$3,900.00.

October 26th, 175 Fairmount Street, owned and occupied by C. O. Wilson, loss \$1,095.40.

November 7th, 336 Parkview Avenue, owned by F. W. & Lelia H. Qua and occupied by F. W. & Lelia H. Qua and Stanley E. Qua, loss \$1,390.00.

November 7th, Princeton Street, owned and occupied by the Highland Club, loss \$1,125.00.

December 6th, Moody Street, owned by W. B. Spalding

Estate and occupied by C. Husband, loss \$1,109.00.

December 22nd, 705 Gorham Street, owned and occupied by Lowell Waste Company, loss \$1,839.39.

December 23rd, 404 Middlesex Street, owned by D. Ziskind and occupied by Adams Hardware Company, loss \$19,241.23.

The total loss on these twenty-six (26) fires was two hundred one thousand, seven hundred and forty-eight and ninety-four cents (\$201,748.94) leaving twenty-three thousand, eight hundred fourteen dollars and one cent (\$23,814.01) to be divided between the other seven hundred and eighty-five alarms.

A comparison of the Total Number of Alarms and Losses from January, 1904 to January, 1920:

Year	Alarms	Ins. Loss	Unins. Loss	Total Loss
1904	707	\$326,861.57	\$90,464.27	\$417,325.84
1905	798	89,112.18	1,850.00	90,962.18
1906	557	64,994.94	2,270.71	67,265.65
1907	838	242,167.98	39,624.52	281,792.50
1908	935	350,873.25	16,421.80	367,295.05
1909	963	177,759.11	8,705.80	186,464.91
1910	904	64,781.93	3,188.00	67,969.93
1911	1101	86,034.34	19,295.48	105,329.82
1912	959	260,833.26	9,575.99	270,409.25
1913	882	200,600.03	19,825.26	220,425.29
1914	1028	265,804.53	17,476.53	283,281.06
1915	926	170,262.53	12,127.67	182,390.20
1916	896	138,170.66	3,400.86	141,571.52
1917	1031	129,207.10	14,994.73	144,201.83
1918	1047	161,940.71	37,688.51	199,629.22
1919	942	211,681.50	20,461.42	232,142.92

NUMBER OF ALARMS OF FIRE EACH MONTH

January	52	July	74
February	103	August	58
March	75	September	37
April	96	October	44
May	52	November	45
June	70	December	105
		Reported	131
Total	942		

CAUSES OF FIRES AND ALARMS

Alarms for same fire ...	24	Gasoline torch upset ...	2
Ammonia tank leaking ..	2	Grass	89
Asbestos on boiler	2	Grease on stove	2
Automobiles	28	Hot ashes	10
Awning	1	Hot coals	1
Boiler smoking	4	Hot cinders	1
Bon fire	1	Insulation of wires	1
Bricks out of oven	1	Japanese lantern	1
Brush	17	Kettle of fat	1
Burning leaves	2	Lamp exploded	3
Candles	1	Lightning	3
Carelessness	10	Man asphyxiated	1
Careless use of matches	30	Motor	6
Children and matches .	21	Motor cycle	1
Chimney	71	Moulder's flash	1
Cigaret	35	Moving picture machine	1
Cleaning with gasoline ..	1	Nealing tank	1
Clothes caught fire	1	No school	14
Coffee roaster	1	Oil barrel burst	1
Combustion	44	Oil heater	8
Defective chimney	2	Oil stove	8
Defective stove funnel .	2	Oily rags	1
Defective wiring	3	Out of the city	7
Drying plaster	1	Overheated boiler	3
Dump	97	Overheated chimney	4
Dust blower	1	Overheated fireplace	3
Dust on radiator	1	Overheated funnel	6
Electric car	1	Overheated furnace	3
Electric wires	4	Overheated store	7
Exposure }	9	Pan of meat	3
False alarms	17	Paper on steam pipes ...	1
Fat on stove	4	Picker machine	1
Firecrackers set roof	7	Police	1
Fireworks	6	Rats and matches	13
Food on stove	1	Rekindled	11
Fumigating	1	Reported alarms	131
Furnace smoking	1	Rescuing boys on rocks .	1
Fuse burned out	1	Rubbish	36
Gas heater	1	Second alarms	6
Gas jet	2	Set by boys	19
Gas jet set curtain	4	Smoke from chimney ...	2
Gas jet set clothing	1	Smoke from furnace	1
Gas leak	3	Smoking set bed	15

Sparks from chimney ..	6	Stove disconnected	1
Sparks from locomotive.	1	Stove smoking	9
Sparks from machine ...	1	Tar kettle	1
Sparks from stove	1	Thawing water pipes ...	6
Sparks in dust blower ..	1	Thermostat system out	
Sparks in wood box	1	of order	4
Sparks set oil tank	1	Torch upset	1
Sparks set railroad ties .	1	Tree	1
Sparks set roof	12	Trolley wires	2
Sprinkler out of order ..	2	Water slacked line	1
Steam escaping	2	Wires	3

NUMBER OF ALARMS ANSWERED BY MEMBERS OF DEPARTMENT ON DAYS OFF

Capt. C. E. Abare	3	F. A. Corcoran	1
Capt. E. W. Bartlett	2	G. A. Crawford	1
Capt. H. Boynton	1	J. L. Crewe	1
Capt. R. E. Burns	1	E. J. P. Cunningham	4
Capt. G. A. Campbell	7	T. J. Dewire	2
Capt. T. W. Collins	1	J. J. Donohoe	1
Capt. T. F. Conway	2	W. F. Egan	1
Capt. W. A. Dolan	3	W. T. Foss	1
Capt. G. E. Flint	4	H. V. Green	1
Capt. D. W. Hilliard	1	R. J. Hayes	1
Capt. F. Hoyt	1	W. J. Heelon	1
Capt. J. J. McCafferty ...	2	J. H. Lannon	1
Capt. H. A. Merrill	2	W. O. Lussier	2
Lieut. G. S. Alcott	1	T. F. Maguire	4
Lieut. J. M. G. Burns	2	W. P. Maker	1
Lieut. G. H. Chapman	1	J. J. Malone	5
Lieut. H. L. Foster	2	J. F. McGuinness	1
Lieut. J. W. Halstead	2	J. P. Moore	1
Lieut. E. Jennings	1	H. R. Morrison	1
Lieut. W. F. Tighe	1	B. J. Mullen	1
Lieut. T. H. Welch	1	J. O'Hare	1
J. F. Ambrose	2	P. H. O'Loughlin	1
W. M. Bamford	4	R. Otley	5
R. W. Broadbent	2	S. R. Pendexter	1
C. L. Brown	2	J. J. Rinehardt	1
W. F. Christie	1	J. H. Rogers	1
C. H. Cogswell	1	E. J. Tighe	1
F. G. Collins	1	E. A. Walsh	1

SERVICE OF THE DEPARTMENT FOR 1919

	Number of alarms attended	Number of hours worked	Feet hose laid	Hours of hydrants in use	No. of exting- uishers used	Number of chemical tanks used	Feet of ladders raised	Hours engines worked	Number of covers used
Engine	120	66 $\frac{3}{4}$	7 400	14 $\frac{1}{2}$	49	13	130	1 $\frac{1}{4}$	
	141	81 $\frac{1}{2}$	8 350	22	84	16	176	3 $\frac{3}{4}$	
	163	87 $\frac{1}{2}$	6 200	19 $\frac{3}{4}$	33	21	170	$\frac{1}{2}$	
	117	62 $\frac{1}{4}$	4 700	14 $\frac{1}{4}$	52	13	131	7 $\frac{1}{4}$	
	72	119 $\frac{3}{4}$	21 350	83 $\frac{3}{4}$	20		36	1 $\frac{1}{4}$	
	129	71 $\frac{1}{2}$	7 900	24 $\frac{1}{4}$	33	10	177	2	
Hose	99	86 $\frac{1}{2}$	7 950	4 $\frac{1}{4}$	35	11	40		
	153	77 $\frac{1}{4}$	10 700	23 $\frac{3}{4}$	52	44	128		
	81	67 $\frac{1}{4}$	6 450	23 $\frac{3}{4}$	39				
	64	75	8 600	26 $\frac{1}{2}$	33	15	180		
	60	47 $\frac{1}{4}$	4 650	13 $\frac{1}{4}$	30	6	160		
Truck	140	137 $\frac{1}{2}$	17 600	77 $\frac{3}{4}$	15		944		
	51	53 $\frac{1}{4}$			4	4	939		
	103	66 $\frac{3}{4}$					2 165		
	132	79					497		
	81	49 $\frac{1}{2}$			99	45	450		151
Protective	290	131 $\frac{3}{4}$							
	1 996	1 360 $\frac{1}{4}$	111 850	384 $\frac{3}{4}$	578	198	6 314	14 $\frac{1}{2}$	151

IN MEMORIAM



EDWARD S. HOSMER

Joined the Department in 1856.

CHIEF

FROM

FEBRUARY, 1880

TO

May, 1913.

PENSIONED

May 1, 1913.

DIED

August 13, 1919.

IN MEMORIAM

FRANKLIN B. AKERS
LIEUTENANT
ENGINE COMPANY 2
Appointed, January, 1878
DIED
February 10, 1919.

ROGER J. HAYES
HOSEMAN
HOSE COMPANY 10
Appointed January, 1905
DIED
March 6, 1919.

TIMOTHY DWYER
LIEUTENANT
TRUCK COMPANY 1
Appointed September, 1888
DIED
March 18, 1919.

GEORGE W. LOVETT
TELEPHONE OPERATOR
PALMER STREET
Appointed December, 1875.
DIED
April 16, 1919.

IN MEMORIAM

JEREMIAH J. HARRINGTON
TELEPHONE OPERATOR
PALMER STREET

Appointed November, 1869.

DIED

July 3, 1919.

THOMAS F. WELCH
CALL MAN
HOSE COMPANY 10

Appointed June, 1894.

DIED

January. 2, 1919.

HARRY F. HARRIS
PENSIONER

Appointed, November, 1888.

Pensioned, July 13, 1918.

DIED

October 12, 1919.

FATALITIES

April 5th. Margaret L. Dunlavey, 25 Brooks Street, age six years, eight months. Clothing caught from stove.

August 5th. Edward W. Wilson, 62 So. Whipple Street, age three years, six months. Playing with matches set clothing.

November 21st. Angelakos Vramotis, 95 Dummer Street, age five years. Playing with matches.

December 24th. Elizabeth H. Green, 74 Dover Street, age seventy four years. Matches set clothing.

In conclusion I wish to extend my thanks to His Honor, the Mayor, the Commissioner of Water Works and Fire Protection and the Municipal Council for the interest taken in matters pertaining to the Fire Department. I also wish to thank the officers and members of the Department for the ability, faithfulness and willingness shown in the performance of their duties. I wish to extend thanks to the Chief of Police and the members of the Police Department for the assistance rendered at fires.

Respectfully submitted,

EDWARD F. SAUNDERS,
Chief of Fire Department.

FIRE DEPARTMENT

January 1, 1920.

Commissioner

CHARLES J. MORSE Office, City Hall
Residence, 6 rear 32 Pleasant Street

Chief Engineer

EDWARD F. SAUNDERS Office, Palmer St., Engine House
Residence, 24 Mt. Washington St.

District Chiefs

JAMES C. SULLIVAN	250 Rogers St.
DANIEL R. CROWLEY	26 Marginal St.
THOMAS F. SAUNDERS	168 School St.

Assistant Engineer

CHARLES E. ALWAY 16 West Bowers St.

Chief's Chauffeur

HARRY B. SANDERS 20 Manahan St.

Fire Alarm Operator

HENRY C. FERNALD	Palmcr St. Engine House
THOMAS McCORMICK, Lineman	37 West Fifth St.
ARTHUR E. KING, Lineman	205 Stackpole St.

Telephone Operators

THOMAS F. CONWAY, Chief Operator	148 Sixth St.
PHILIP McLAUGHLIN	16 Keene St.
MOSES I. COLLINS	20 Coral St.
JOSEPH E. McGANN	37 Cosgrove St.

LIST OF MEMBERS, GIVING RANK AND RESIDENCE BY COMPANIES.

ENGINE COMPANY NO. 1.

795 Gorham Street.

Thomas W. Collins, Captain, Badge No. 11	145 Andrews St.
Philip F. Mooney, Lieutenant, Badge No. 18	203 Moore St.
James W. Jantzen, Engineer, Badge No. 16	3 Olive St.
Robert H. Otley, Hoseman, Badge No. 12	Engine House
James O'Hare, Hoseman, Badge No. 13	27 Ellsworth S.
W. Henry Kirkpatrick, Hoseman, Badge No. 10	35 London St.
Wm. J. Heelon, Driver, Badge No. 14	12 rear 33 So. Whipple
James H. Gray, Driver, Badge No. 85	23 Ellsworth St
Michael T. McCann, Hoseman, Badge No. 15	28 Bowden St.
Thomas McNamara, Call Man, Badge No. 17	Engine House

ENGINE COMPANY NO. 2.

45 Branch Street

Henry Boynton, Captain, Badge No. 2	17 Lane St.
Charles F. Stackpole, Lieutenant, Badge No. 22	25 Grace St.
Herman R. Morrison, Engineer, Badge No. 29	342 Westford St
Wilbur H. Oke, Hoseman, Badge No. 20	175 Westford St.
George A. Crawford, Hoseman, Badge No. 25	47 Highland Ave
Forest E. Alcott, Hoseman, Badge No. 28	57 Coral St.
Frank E. Turner, Hoseman, Badge No. 24	15 Ware St.
Frank A. Corcoran, Hoseman, Badge No. 23	15 Ames St.
William P. Maker, Hoseman, Badge No. 26	12 Flemings St.
Frank Broadbent, Hoseman, Badge No. 21	121 Branch St.

ENGINE COMPANY NO. 3.

Palmer Cor. Middle Street.

Frank Hoyt, Captain, Badge No. 30	21 Eighth Avenue
Elbridge H. Dearth, Captain, Badge No. 31	64 So. Loring St.
Harold L. Foster, Lieutenant, Badge No. 36	31 Midland St.
Moses I. Collins, Hoseman, Badge No. 33	20 Coral St.
John J. Rinehardt, Hoseman, Badge No. 39	101 Gates St.
Hugh V. Green, Hoseman, Badge No. 35	549 Lakeview Ave.
John J. McCarthy, Hoseman, Badge No. 32	150 Fourth Ave.
Barth. J. Mullen, Hoseman, Badge No. 37	2 Clinton Ave.
Thomas F. Sullivan, Hoseman, Badge No. 34	72 Boylston

ENGINE COMPANY NO. 4

High Street

J. Edward Burns, Captain, Badge No. 4 39 Whitehead Ave.
Alfred F. Prescott, Lieutenant, Badge No. 42 565 Wilder St.
Jay D. Ismond, Engineer, Badge No. 47 246 Beacon St.
William F. Dolan, Hoseman, Badge No. 43 Engine House
James T. Doyle, Hoseman, Badge No. 49 Engine House
George J. Tracy, Hoseman, Badge No. 41 30 Riverside St.
Michael E. Egan, Hoseman, Badge No. 48 113 Pleasant St.
Francis J. Sullivan, Hoseman, Badge No. 44, 151 Lawrence St.
James H. Lannon, Hoseman, Badge No. 46 819 Lawrence St.
George E. Schofield, Hoseman, Badge No. 40 95 Myrtle St.

ENGINE COMPANY NO. 5

29 Fourth Street.

James J. McCafferty, Captain, Badge No. 55 74 Fourth St.
Patrick F. Mahoney, Lieutenant, Badge No. 56 18 Fourth St.
Alonzo E. Kidder, Driver, Badge No. 5 61 Twelfth St.
Charles L. Brown, Engineer, Badge No. 51 Engine House
Bird C. Reed, Driver, Badge No. 54 48 Humphrey St.
Edson S. Barnes, Hoseman, Badge No. 50 68 Beacon St.
John C. O'Neil, Hoseman, Badge No. 57 20 Sixth Avenue
Hugh A. McLaughlin, Hoseman, Badge No. 56, 127 Bellevue
Thomas J. Gillick, Hoseman, Badge No. 52 144 Pleasant St.
Frederick D. Mansur, Call Man, Badge No. 58 21 Third St.
Arthur B. Strout, Call Man, Badge No. 59 101 Myrtle St.

ENGINE COMPANY NO. 6.

Fletcher Street.

Richard E. Burns, Captain, Badge No. 68 203 Westford St.
William J. Barrett, Lieutenant, Badge No. 61 16 W. Bowers
John A. Fletcher, Hoseman, Badge No. 6 37 Varney St.
Thomas F. Maguire, Hoseman, Badge No. 63 14 Varney St.
Samuel R. Pendexter, Hoseman, Badge No. 60, 22 W. Bowers
Edgar Perham, Hoseman, Badge No. 69 55 Arlington St.
John J. Wholey, Hoseman, Badge No. 66 48 Mt. Vernon St.
Frank G. Collins, Engineer, Badge No. 62 798 Moody St.
Edward J. O'Donnell, Hoseman, Badge No. 64 70 Rock St.
George W. Cummings, Hoseman, Badge No. 67, 79 Third Ave.

HOSE COMPANY NO. 7.

490 Central Street.

James A. Shea, Captain, Badge No. 70 22 Bleachery St.
Thomas H. Welch, Lieutenant, Badge No. 72 93 Chapel St.
Timothy J. Dewire, Hoseman, Badge No. 7 315 High St.
James H. Tracy, Hoseman, Badge No. 76 147 Concord St.
William J. Lane, Hoseman, Badge No. 74 505 Central St.
Patrick J. Mooney, Hoseman, Badge No. 73, 207 Mammoth Rd.
Bernard F. Connors, Hoseman, Badge No. 75 76 Elm St

HOSE COMPANY NO. 8

Merrimack, Corner Race Street.

George F. Flint, Captain, Badge No. 82 63 Woodward Avenue
Gilman S. Alcott, Lieutenant, Badge No. 88 1194 Middlesex
George H. McDermott, Hoseman, Badge No. 86, 171 Cross St.
Joseph F. Convery, Hoseman, Badge No. 83 19 Bowers St.
Joseph H. Rogers, Hoseman, Badge No. 89 209 Ludlam St.
H. C. Carpentier, Hoseman, Badge No. 84, 30 W. Meadow Rd.
Joseph L. Crowe, Hoseman, Badge No. 87 116 Crawford St.
Nap. Grandchamp, Hoseman, Badge No. 80, 12 Arthur Ave.
Romuald Bisailon, Hoseman, Badge No. 8 67 Mammoth Rd.

HOSE COMPANY NO. 9.

Orison A. Knapp, Captain, Badge No. 9 47 Hawthorne St.
George A. Chapman, Lieutenant, Badge No. 92 53 Quebec St
Charles A. Rock, Driver, Badge No. 93 673 Chelmsford St.
Fred Boynton, Hoseman, Badge No. 98 148 Smith St.
Fred O. J. Townsend, Hoseman, Badge No. 96 14 Somerset St.
Frank A. Kappler, Call Man, Badge No. 94 125 London St.

HOSE COMPANY NO. 10.

Mammoth Road.

Edwin W. Bartlett, Captain, Badge No. 160 559 Fletcher St.
William F. Tighe, Lieutenant, Badge No. 162 28 Willie St.
Robert W. Broadbent, Driver, Badge No. 161 11 Fourth Ave.
David Laferiere, Hoseman, Badge No. 167,
100 W. Meadow Rd.
Edward F. Farrell, Hoseman, Badge No. 166 12 Third Ave.
John J. Frazier, Call Man, Badge No. 163 54 Starbird St.

HOSE COMPANY NO. 11.

Lawrence Cor. So. Whipple Street.

William A. Dolan, Captain, Badge No. 200, 56 Crowley St.
Edward Jennings, Lieutenant, Badge No. 201 859 Lawrence
John D. Finnegan, Driver, Badge No. 203 732 Lawrence St.
John N. Emerson, Hoseman, Badge No. 202 27 Carter St.
Michael J. O'Connor, Hoseman, Badge No. 204 101 London
Peter B. Gray, Hoseman, Badge No. 207 71 Whipple St.
Peter Sheehan, Call Man, Badge No. 19 11 Lyon St.
James E. Burns, Call Man, Badge No. 205 93 Moore St.
Frederick H. Crosby, Call Man, Badge No. 206 14 Whidden

HOSE COMPANY NO. 12.

West Sixth Street.

Charles E. Abare, Captain, Badge No. 220 51 Fifth St.
Lewis P. Reed, Lieutenant, Badge No. 221, 874 Lakeview Ave.
Joseph Bernier, Hoseman, Badge No. 223 27 Beaulieu St.
Edward Landry, Hoseman, Badge No. 226 29 Beaulieu St.
William F. Egan, Hoseman, Badge No. 225 69 Lilley Ave.
William E. Gorman, Hoseman, Badge No. 224 17 Ellis St.
Peter J. Regan, Hoseman, Badge No. 227 316 Rogers St.

TRUCK COMPANY NO. 1.

Lawrence Street.

Timothy Brown, Captain, Badge No. 209 27 So. Whipple St.
Joseph M. G. Burns, Lieutenant, Badge No. 210 543 Rogers
John J. Lowney, Driver, Badge No. 215 361 Lincoln St.
James F. McGuinness, Ladderman, Badge No. 213

119 Agawam St.

Patrick H. O'Loughlin, Ladderman, Badge No. 216

30 Mead St.

Edward J. Tighe, Ladderman, Badge No. 212 72 Chestnut St.

John J. Donohoe, Ladderman, Badge No. 217, 76 Agawam St.

Hugh F. Finnerty, Ladderman, Badge No. 218, 174 Concord

TRUCK COMPANY NO. 2.

Westford Street.

Daniel W. Hilliard, Captain, Badge No. 121 20 Osgood St.

George W. Alcott, Lieutenant, Badge No. 120 202 Westford St.

George A. Dickey, Driver, Badge No. 127 11 Hastings St.

Edgar E. Smith, Ladderman, Badge No. 123 206 Wilder St.

Hamblin S. Gardner, Ladderman, Badge No. 122, 8 Hastings

Herbert W. Hilliard, Ladderman, Badge No. 124, 20 Osgood

Quincy A. Foster, Driver, Badge No. 126, 39 Midland St.

Cornelius J. Brosnan, Ladderman, Badge No. 129,

42 Second Ave.

Patrick J. Calnan, Ladderman, Badge No. 125, 130 Concord

Frank E. Harris, Call Man, Badge No. 99 Truck House

TRUCK COMPANY

Palmer Street.

Thomas F. Conway, Captain, Badge No. 117 148 Sixth St.
Joseph D'Amour, Captain, Badge No. 110 24 Fisher St.
Philip J. Connor, Driver, Badge No. 112, 506 Gorham St.
William T. Foss, Ladderman, Badge No. 140, 37 Pond St.
Robert Carland, Ladderman, Badge No. 111 17 Second St.
John J. McManmon, Ladderman, Badge No. 114, 23 Woodward
Patrick J. Finnerty, Ladderman, Badge No. 119,
113 Lawrence Street
Martin F. McNally, Ladderman, Badge No. 115
57 So. Whipple Street
John P. Moore, Ladderman, Badge No. 116, 1017 Central St.
John J. Moran, Jr. Ladderman, Badge No. 118,
43 Anderson Street
James A. Haley, Ladderman, Badge No. 113, 23 Bowers St.

TRUCK COMPANY NO. 4.

West Sixth Street.

Herbert A. Merrill, Captain, Badge No. 100, 4Wachusett St.
Edward J. P. Cunningham, Lieutenant, Badge No. 103
109 Mammoth Road
Edward A. Walsh, Ladderman, Badge No. 106, 19 Mt Vernon
William O. Lussier, Ladderman, Badge No. 102, 9 Bowers St
Joseph E. Fontaine, Ladderman, Badge No. 109
280 West Sixth Street
George J. Hurley, Ladderman, Badge No. 107, 192 Fletcher
Ray N. Symonds, Ladderman, Badge No. 104
519 Broadway Street
William N. Flagg, Call Man, Badge No. 79, 75 Whitney Ave.
Nathaniel Landry, Call Man, Badge No. 105, 29 Carolyn St.

PROTECTIVE COMPANY NO. 1.

Warren Street.

George A. Campbell, Captain, Badge No. 135, 11 Third Ave.
James W. Halstead, Lieutenant, Badge No. 136, 115 Warwick
John F. Ambrose, Patrolman, Badge No. 131, 212 Princeton
Joseph J. Malone, Patrolman, Badge No. 133, 427 Lincoln St.
Berry M. Simpson, Patrolman, Badge No. 132, 259 Methuen
William H. Bamford, Patrolman, Badge No. 151, 53 Main St.
William F. Christie, Patrolman, Badge No. 130, 114 Lincoln
Willis S. Holt, Patrolman, Badge No. 134 8 Hale Street
C. Herbert Cogswell, Patrolman, Badge No. 85,
85 Whitney Avenue

FIRE ALARM TELEGRAPH

LOCATION—Palmer Street Engine House

HENRY C. FERNALD, Operator.

THOMAS McCORMICK, Lineman.

ARTHUR E. KING, Lineman.

Ten-circuit Automatic Repeater with Storage Battery
of 600 cups

Miles of Wire	113
Signal Boxes	168
Engineers' Gongs	10
Engine House Gongs	17
Indicators	18
Tape Register	1
Bell Strikers	14

Gong and Indicator at Police Station.

Gong in Pumping Station.

Gong on Merrimack Square.

Gong on Tower's Corner.

Gong on Northern Depot.

Gong corner Moody and Aiken Streets.

Gong corner Bridge and First Streets.

Gong corner Andover and Fayette Streets.

The strikers are located as follows: Palmer Street Engine House, Varnum School House, High Street Church, Court House, No. 1 Engine House, No. 6 Engine House, Highland School House, Pawtucketville Engine House, Franklin School House, Lawrence Street Engine House, Cornell Street School House, West Sixth Street Engine House, Sycamore Street School House, Weed Street School House.

Seventeenth Annual Report

OF THE BOARD
OF

Park Commissioners

OF THE

CITY OF LOWELL



For the Year Ending December 31

1919

PRINTED BY C. I. HOOD CO., LOWELL, MASS.

Department of Public Parks

COMMISSIONERS' REPORT.

*To His Honor the Mayor and the Municipal Council of
the City of Lowell, Massachusetts.*

As required by Chapter 28, Section 13, of the Revised Laws of Massachusetts, entitled "Public Parks, Playgrounds and the Public Domain," the Board of Park Commissioners of the City of Lowell has the honor to submit their annual report.

CLARENCE M. WEED,
Chairman.

Board of Park Commissioners

1919

CLARENCE M. WEED, 1918-1923

THOMAS F. MCKAY, 1919-1924

ALEXANDER E. ROUNTREE, 1917-1922

ROBERT F. MARDEN, 1916-1921

HARVEY B. GREENE, 1915-1920

COMMITTEES

Parks: MR. GREENE, MR. MARDEN, MR. WEED

Playgrounds: MR. MARDEN, MR. GREENE, MR. WEED

Trees: MR. ROUNTREE, MR. MCKAY, MR. GREENE

Legislation: MR. MCKAY, MR. ROUNTREE, MR. MARDEN

OFFICERS

Chairman

CLARENCE M. WEED

Secretary

ALEXANDER E. ROUNTREE

Superintendent of Parks and Playgrounds

JOHN WOODBURY KERNAN

PARK AREAS AND THEIR VALUATION.

Belvidere Park	1.77 Acres	\$ 20,000
Boulevard Park	6.031 "	5,255
Cardinal O'Connell Park	0.114 "	25,844
City Hall and Memorial Grounds	0.50 "	65,700
Coburn Square	0.252 "	1,000
Colonial Avenue Riverbank	3.50 "	2,000
Cor. Rogers and Nesmith Sts.	0.012 "	622
Fayette Street Playground	0.170 "	2,000
Franklin Square	0.058 "	1,500
Glacial Oval		100
Harris Oval	0.12 "	366
Hillside Park	0.061 "	80
Hovey Square	0.010 "	50
Hutchinson Square	0.037 "	150
Lenox Square	0.181 "	1,500
Lincoln Playground	1.525 "	6,000
Lincoln Square	0.016 "	200
*Lucy Larcom Park	0.50 "	21,970
Mansur Square	0.050 "	150
Middlesex Square	0.034 "	200
Monument Square	0.092 "	15,000
Mt. Vernon Park	0.50 "	4,350
North Common	11.39 "	100,000
Parker-Spalding Park	0.043 "	60
Pawtucket St. Park at Northern Canal	0.911 "	6,620
Penniman Square	0.051 "	450
Princeton Square	0.028 "	150
Raven Road Park	0.083 "	180
Riverside Park	0.105 "	184
Rogers Fort Hill Park	34.40 "	150,000
Shedd Playground	56.00 "	50,000
South Common	22.48 "	200,000
Tyler Park	1.81 "	8,000
Varnum Avenue Riverbank	1.018 "	5,150
Varnum Park	0.136 "	6,000
Water Works Square	0.047 "	500
Wyman Park	5.22 "	2,088
Total	149.255 "	\$703,419

*Held by the Chairman of the Park Commission and the Mayor as Trustees, not under the direct charge of the Park Commission.



WADING POOL, SOUTH COMMON

Report of the Board of Park Commissioners For the Year 1919

The following report of the Board of Park Commissioners for the year 1919 briefly summarizes the more important phases of the work accomplished.

In a general way we have followed along the lines previously laid down but have been able, thanks to the cordial co-operation of the Municipal Council, to make some important permanent improvements. The most notable of these is the new Bath House on the Merrimack River, which was opened by His Honor Mayor Perry D. Thompson. It has already proven its value in offering the opportunity for safe bathing and recreation to large numbers of the people of the city.

The Council has also provided funds for the erection of a comfort station on the South Common, which has been greatly needed for many years. We hope that during the summer of 1920 this may be completed and opened to the public.

The playground work has become of greater importance with each passing season. The Board feels that the next step in connection with this phase of recreational activities should be found in the opening of a larger number of playgrounds, especially those for

smaller children in the more congested districts of the city. It also believes that arrangements should be made with the School Department in order that the young people who are present in the playgrounds may be offered opportunities for work in Manual Training and Domestic Arts during part of the time.

The supervision of children's gardens has been carried on through the summer under the direction of the Board by Miss Alice T. Lee and Mr. William H. Dennett whose reports are submitted herewith

Many important projects for the better development of the city's park and recreational opportunities have been brought to the attention of the Board during the year. It seems a pity that it is not possible under the present condition of city finances for more of these projects to be taken up immediately. The board is bearing them all in mind and is doing all that seems possible in the case of each.

We have again to express to Superintendent John W. Kernan and the staff working under his direction our cordial thanks for the efficient and courteous service which has been rendered throughout the year.

Financial Report

PARKS

Appropriation		\$25,000.00
Additional Appro. account of 15% increase for Labor, July 1.....		2,100.00
Rental of Fair Grounds.....		350.00
Rental of South Common Lots, July 3 and 4..		2,434.00
John Roane, Jr., Vender's permit So. Common, July		10.00
John Roane, Jr., Vender's permit So. Common, August		10.00
F. W. Hudson, Vender's permit So. Common, September		10.00
Etna Insurance Co., account damage to tree on Westford Street.....		37.50
Total Appropriation		\$29,951.50
Expended for Labor.....	\$20,189.98	
Expended for Material and Supplies.....	9,761.52	
		29,951.50
Balance		0.00

SPECIAL APPROPRIATIONS

BATH HOUSE.

Appropriation		\$17,000.00
Expended for Construction.....		16,747.57
		\$ 252.43
Set aside account Bath House.....		252.43
Balance		0.00

COMFORT STATION.

Appropriation		\$ 9,000.00
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BALANCE SHEET—PARKS.

MAINTENANCE

Name	Labor \$	Material \$	Improvement \$	Total \$
Belvidere Park	129.65			129.65
City Hall and Mem. Bldg. Grounds	504.48	341.92	127.75	974.15
Cardinal O'Connell Parkway	98.83	66.55		165.38
Coburn Park	47.39			47.39
Colonial Ave. Riverbank		17.04		17.04
Fair Grounds	26.75		287.64	314.39
Fort Hill Park	3,997.07		1,000.00	5,901.16
Franklin Square	14.53			14.53
Harris Oval	26.37			26.37
Hillside Park	13.20			13.20
Hovey Square	6.26			6.26
Lenox Square	8.63			8.63
Lucy Larcom Park	35.80			35.80
Lincoln Square	19.07			19.07
Mansur Square	10.23			10.23
Monument Square	64.03	13.50		77.53
Mt. Vernon Park	17.56			17.56
North Common	1,127.02	155.75		1,282.77
Parker-Spalding Park	4.53			4.53
Penniman Square	12.03			12.03
Princeton Square	16.69			16.69
Raven Road Park	17.79			17.79
Riverside Park	19.87			19.87
Shedd Park	659.34	20.05	500.00	1,179.39

BALANCE SHEET—PARKS—Continued

MAINTENANCE

Name	Labor	Material	Improvement	Total
South Common	2,052.59	1,082.92	1,000.00	4,135.51
Tyler Park	95.81			95.81
Triangular Plot at Cor. Nesmith & Rogers Sts.	107.39			390.67
Varnum Ave. Riverbank	24.62	6.80	383.87	210.39
Varnum Park	11.50	103.00		24.62
Water Works Square	2,720.70	71.00		11.50
Office	213.85	739.26		2,791.70
Stable		858.73		953.11
Care of Auto and Truck	1,728.75	318.11		858.73
Playgrounds	2,648.19	133.54		2,046.86
Trees	725.26	192.00		2,781.73
Mov. Picture Shows			2,622.20	917.26
New Bath House			1,800.00	2,622.20
New Truck				1,800.00
	<u>\$17,205.78</u>	<u>\$5,024.26</u>	<u>\$7,721.46</u>	<u>\$29,951.50</u>

Respectfully submitted,

CLARENCE M. WEED,
 ALEXANDER E. ROUNTREE,
 ROBERT F. MARDEN,
 THOMAS F. MCKAY,
 HARVEY B. GREENE,

Board of Park Commissioners.

Report of Garden Supervisors

The United States School Garden Army was organized in all the elementary schools in Lowell with the approval of the Superintendent of Schools during the spring months in 1918. This was in response to the call of the President of the United States, through the United States Bureau of Education. In 1919 the call was again made, that our children assist in increasing food production. The schools responded and the organization was perfected.

Seeds were supplied by the United States government through our Congressman, Hon. John Jacob Rogers.

It was a matter of much gratification to find that parents were equally as interested as were their children in the success of the children's gardens. I did not find ten parents in the city who were indifferent—every inspection of a garden was really a visit to the family, and interesting stories of how the gardens were made, of the struggles on account of poor soil, lack of sunlight, weeds, and garden pests were told. Gardens were made in the most out-of-the-way places—in the center of court yards, in back yards hidden from sight, on roofs of houses, in long boxes filled with good loam, in yards paved or of

concrete, and in corners of the roadside. Wherever there were gardens of this kind, there were also to be found neat yards and sidewalks; the first lesson given in garden work was to clean up back yards, and then to keep them clean.

There were also the gardens made under excellent conditions with excellent soil, plenty of sunlight and good drainage, and where every foot of land was made use of, and these showed splendid results. There were community gardens, where parents cultivated large areas assisted by children and where each child had his own special garden; and these individual gardens showed much more care than the larger gardens.

The area of the children's gardens varied according to location of garden and age of children from 5000 square feet to 10 square feet, and there was one garden just one foot square.

At this date the total amount harvested is not available, but from reports received surprising results have been obtained. Two boys provided vegetables for two families, seven in each family, and they have plenty stored for winter use. One third grade boy raised thirty dollars' worth of vegetables, much of which he sold. One ninth grade boy has already received \$200 for vegetables sold. From two packets of carrot seeds received from Congressman Rogers, there was a yield of two bushels and a half of carrots; from one package of cucumber seeds, one bushel of cucumbers.

Placing the average valuation of amount harvested at \$5, the total amount raised on these 1000 gardens might amount to \$5000. This was, however, less than

one-fourth of the total number of gardens. It would not be placing the amount too high to say that the money value of the garden work in Lowell was not less than \$20,000.

Of infinitely more value is the educational value of the garden work to our children and to parents, of the civic pride and civic responsibilities implanted, and the strengthening of the bond between school and home.

(Signed) ALICE T. LEE,
Supervisor.

I submit the following report of visits to children registering for school gardens. These visits were made during the month of August and included the Butler, Colburn, Green, Lincoln, Moody, Morey, Pawtucket, Varnum and Washington districts. I have classified the gardens into these groups: (1) Individual, (2) Collective—two or more children together, (3) With adults, (4) No garden—not started, bad luck, neglected, gone by, (5) Moved. The result may be of interest.

Individual	342
Collective	116
With adults	142
No garden	399
Moved	29
Total visited	1029

Possibly it would have been better to have separated the class “gone by” from the class “no garden.”

I should also like to make the following general observations:

1. The children are doing an astonishingly large amount of garden work, and with a proper amount of encouragement and help it should mean much as an educational and practical part of work with children.

2. The mass of good results is of course outside the central congested part of the city, but one finds very surprising instances of ingenuity and making use of almost hopeless spaces.

3. There is a very evident lack of:

(a) planning arrangement.

(b) proper choice of crops, notably in the case of melons.

(c) planning for continuous and late crops.

4. A natural falling off in interest as the season progresses and consequently a neglect of gardens started.

5. The parents are interested and are very much pleased at the visits of the supervisors.

Respectfully submitted,

WILLIAM W. DENNETT.

Superintendent's Report

To the Board of Park Commissioners.

GENTLEMEN :—

In consequence of my Annual Report for 1918 not having been published in printed form, this report includes a brief summary of our work since 1917.

Generally speaking, parks small and large, are located and maintained in and around cities not only as the breathing and resting places of the people whose vocations compel them to live in crowded houses with no outlets but the pavements of streets and sidewalks, but they are also intended and expected to arouse in the breasts of the people the dormant but innate love of the beauties of nature. This love of the beautiful things in nature in turn must elevate the moral tone of the average man, woman and child, and create in them the desire to have some of these beauties near to them, for their very own;—a plot of green grass, a few flowers, or, if possible the beauty and shade of a tree.

It is therefore, the duty of a Park Commission not only to make the park intrusted to it beautiful and attractive in itself, but having cultivated in themselves this love of nature to a degree above other men, in the posi-

tion of Commissioners; and having knowledge as to the practical methods of making parks places of beauty and restfulness, it becomes the duty of those charged with the care of parks to arouse as much as lies in their power this latent love, and transmit this practical knowledge to the less fortunate dweller in the crowded city.

A plea for the maintenance of a high standard in the conduct of the affairs of the park naturally appeals to all who frequent its territory. The standard can be obtained only by the exercise of care in the selection of those whose duty it is to look after the welfare of the park and people. It is essential that the custodians of the ground should be courteous, alert in the detection of violation of the rules and regulations, and above all, be thoroughly in sympathy with nature. Again the people should lend their aid to the good work by respecting the rights of others, even keeping in mind that a beautiful shrub, tree or flower blooms not alone for the individual to appropriate, but for all to enjoy.

Our park system has been developed and expanded to an extent not approached at any period in its previous history. While we have had a little larger appropriation to work with than formerly, it has been offset by the increased cost of labor and materials; so that what little accomplishments we have made, have been by the strictest kind of economy. The Commissioners have been inspired with the desire to serve the citizens as a whole by developing the parks in such a manner that the fullest enjoyment, physical, mental and recreative, could be secured with the minimum of effort. With very natural pride, looking back on these efforts, I know they realize

the abundant appreciation which is shown by our citizens and visitors making good use of our parks and open spaces.

In addition to the usual work of maintenance we have been able to grade nearly an acre of land on the tannery side of Ft. Hill Park and by doing a little each year it is my hope that the time will not be far distant that this side will look the equal of the Rogers street side.

At Shedd Park a like job was done in grading and will be continued as funds will permit. The top of the hill was planted with young white pines, taken from our own nursery, and soon we expect to make plantings of oak.

We have transformed an ugly looking dump at the corner of Rogers and Nesmith Streets into quite a presentable condition, by carting away the debris, cutting down a wild growth of brush, and filling in same with good filling and loam from Shedd Park. We intend to plant this little area so that it will be a beauty spot.

Two new steel flag poles were purchased and set in position on the South Common, and add materially to the general appearance. Our wooden flag poles of Oregon Pine at the North Common and Fort Hill were repaired, as they had become dangerous, and then given two good coats of white lead. They are now in first-class shape and will last for many years.

The wading pool at the South Common is at last finished. The floor was built of black tar concrete. Before this was laid it was necessary to make considerable of a fill. Great care and accuracy had to be used, watching out that the fill was properly rolled to prevent settle-

ments, and also on account of the fact that we had a tapering grade whereby at one end of the pool we would have 6 inches of water while at the other end 18 inches. The granolithic walk twelve feet wide completely around the pool, as well as the planting plan is now completed. This pool has amply justified the expense incurred, as any hot day last summer it was no uncommon sight to see at least one thousand children enjoying it to the limit.

We have had added to our Park domain by purchase by the city in July, 1917, a part of what is known as the "Old Fair Grounds" off Gorham Street. The tract consists of approximately ten and one-half acres of land, and serves this section of the city admirably as an athletic field. A part of the plot has been set off for Victory gardens the last two years, and used to good advantage by the neighbors in that vicinity.

The City Government in their wisdom passed a loan order in June, 1919, for the erection of a Bath House on the banks of the Merrimack River on the boulevard; and also for the erection of a Comfort Station on the South Common, amounting to \$26,000 which was to cover both buildings, and to be expended under the direction of the Board of Park Commissioners.

Mr. Henry L. Rourke very kindly offered to draw plans and specifications for the Bath House gratis, and his offer was accepted by the Board with thanks. Bids were submitted by the different contractors of the city on June 30, 1919, and after a perusal of same by the Board the general contract was awarded on July 1, 1919, to Daniel H. Walker for \$15,595 and the plumbing contract to Farrell & Conaton for \$1462, they being the lowest bidders.

Considerable grading had to be done around the Bath House, as well as many *betula nigra* trees, (river birch) cut down. Regular employees of our department did this, as I could best spare them from their ordinary work. We found it necessary also to lay a water main of about 1000 feet to the Bath House, as well as a sewer of 300 feet in length. In all \$2622.20 was spent from our regular Park Department funds at the Bath House.

On Sept. 29, 1919, the Bath House was formally opened and dedicated in the presence of 5000 people. Water sports were indulged in by many and the U. S. Cartridge Co. Band gave a delightful concert. His Honor Mayor Perry D. Thompson, who had been for some time a real enthusiast for the project, graced the scene by his presence, and delivered an address befitting the occasion.

The building is 134 feet long and 45 feet in width and is equipped with lockers for 200 persons, with offices, shower baths, toilets, and an emergency room. It is of brick and will stand for many years, for it is very substantially built.

The design for the Comfort Station on the South Common having been decided on by the Board, plans and specifications were awarded to Mr. Henry L. Rourke. The level plot of ground between the pool and Thorndike Street has been decided on as the site, and it is expected to start work on same just as soon as the frost is out of the ground; \$9000 is the amount allotted for the station, and when completed, a crying need for this Common will have been accomplished.

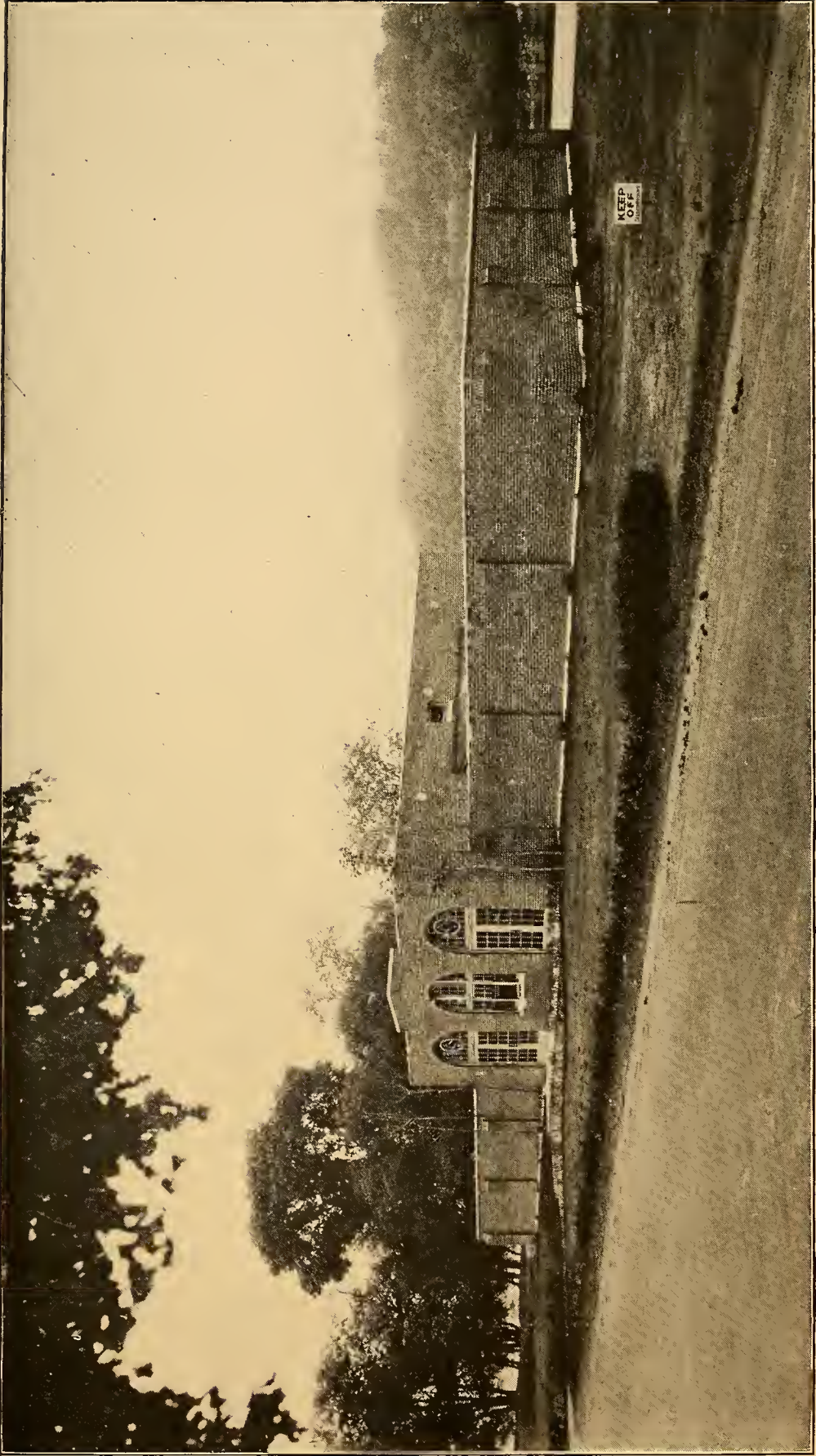
CHRISTMAS TREE CELEBRATION

As a city function in 1914 the good custom was initiated here in Lowell of making merry, over that brightest of all the festivals of the year, the Yuletide season. A large spruce tree was obtained on the outskirts of the city and set up in the center of Worthen Street facing City Hall, the site being thought more desirable than on the South Common, where formerly held. Throughout the daytime the big tree, with its symmetrical branches was set off by the winter sun against the massive City Hall of granite, and was admired by all as a thing of beauty. At night it was a sight to behold, all aglow with hundreds of multi-colored lights. Every window in City Hall was ablaze with candles and this gave a decidedly attractive touch to the scene.

In the midst of this setting with a full band accompanying, Christmas Carols were sung under the leadership of Mr. Albert Edmund Brown, on Christmas Eve and then on New Year's Eve the school children gathered around the tree and sang under the direction of Mr. Fred. O. Blunt. His Honor Perry D. Thompson extended the greetings of the season on both occasions. Many thousands of people witnessed the celebration and favorable comments were heard from all sides.

GRANITE MEMORIAL SHAFT UNVEILED IN VARNUM PARK.

On Sunday, Nov. 30, 1919, the citizens of Centralville gathered in and around Varnum Park and with Commissioner John F. Salmon as their spokesman presented to the City of Lowell a granite memorial shaft with the



MUNICIPAL BATH HOUSE, MERRIMACK RIVER BOULEVARD

names of the fallen heroes, coming from that section of the city of the late world war, inscribed on its face. His Honor Mayor Perry D. Thompson accepted the gift on behalf of the City of Lowell. The exercises were very impressive and were listened to with deep respect by many thousands of people.

RECOMMENDATIONS.

Fully conscious of the call for money by other city departments whose projects are perhaps of more moment than ours, I am ably cognizant that I would be amiss of my duties, if I were to sit idly by, going along the lines of least resistance, and not make any recommendations calling for the expenditure of money looking to the future. Lowell is indeed extremely unfortunate in not having more public benefactors toward our Park system. In many other cities more than half of their parks have been given and developed by public-spirited citizens.

At this time I desire to reiterate my recommendation of 1914 that the city acquire a Park and Playground in West Centralville. As this is a densely populated section averaging in one-half a square mile, 1200 families—there being five children to a family—one can readily see the urgent necessity of establishing a breathing spot in this locality.

I also recommend that the city acquire a playfield in the Highlands. With the great building boom that has taken place there the last few years, the vacant lots that the boys were wont to play on, are now a thing of the past. “Young America” in the Highlands should cer-

tainly have a playfield, that they may engage in the healthiest of exercises—outdoor sports.

In Belvidere the city should take over the land between Fort Hill Park and the Tannery which is now held by the U. S. Government and on which they recently contemplated the erection of a number of houses. This would meet the needs of the boys in Belvidere for sports, and keep them from encroaching on our lawns at Fort Hill Park.

I cannot too strongly urge the city to seize the land on Riverside Street from Pawtucket Square to Colonial Avenue adjoining the Merrimack River and construct a beautiful river-bank park, as well as build the river-bank park along Varum Avenue from the Square; plans of which we now have on hand. The ultimate embellishment would add immensely to the new bridge recently completed.

CARDINAL O'CONNELL PARKWAY.

On Sunday, Nov. 17, 1918, the opening of Cardinal O'Connell Parkway and presentation of the fountain and bust of the Cardinal, which was a gift of the people of the city, took place. The bust and fountain were designed by Henry L. Rourke. They occupy the center of a grass plot opposite the Merrimack Street side entrance of City Hall. The parkway is the extension of Dummer Street from Market Street to Merrimack Street.

Many thousands of people, of various creeds, took part in the parade and withstood the distressing weather conditions to honor—a prince of the Catholic Church—William Cardinal O'Connell. Later in the day many

more thousands gathered in and about City Hall and the parkway to take part, by their presence, in the dedicatory exercises. They bore testimony in a manner that will go down in the annals of the city's history as the greatest tribute and mark of high esteem ever accorded a son of Lowell.

Owing to the inclemency of the weather the formal dedicatory exercises were held inside the hall in the councilmanic chamber. Hon. James B. Casey, chairman of the committee on arrangements, made the opening address and after prayer by Right Rev. Wm. O'Brien of St. Patrick's Church, Mr. Humphrey O'Sullivan, one of the prime movers and hardest workers in the interest of the day's affair, made an address of welcome. Mr. Hugh J. Molloy, Superintendent of Schools, made the presentation speech and His Honor Mayor Perry D. Thompson accepted the gift on behalf of the city. The last address of the afternoon was delivered by His Eminence, whose words were listened to with marked attention and interest by all. Both before and after the exercises His Eminence held a reception in the building, and met many of his old friends and associates.

PLAYGROUNDS.

Through the influence of the playgrounds here in Lowell the corner gangs, so-called, have become the athletic gangs of the neighborhood. The surplus of animal spirit is not as it was before, apparent in juvenile turbulence, vandalism and petty thefts, but in athletic and gymnastic competition. Mothers living in the vicinity of our playgrounds realize that they can send or bring

their children in the morning to the grounds and find them at the close of the day safe and well behaved.

The activities of children on our grounds are principally devoted to physical training, combined with pleasure and recreation. We also have classes in industrial work which are well patronized. The children rapidly become well trained performers on the apparatus and the playgrounds assume an important factor in physical development for both boys and girls. They learn to respect property rights. They realize quickly that the playgrounds are their own, that vandalism and the desire to destroy is a hurt to themselves and consequently, they support the supervisors in protecting property. While the boys and girls find pleasure and recreation on the grounds, they lay the foundation for good citizenship and respect for law and order and appreciation of the value of public property.

Our playgrounds were opened on July 8, and were continued for a period of eight weeks. The attendance numbered nearly two thousand children daily and the supervisors selected by the Board of Park Commissioners, were the very best that could be secured. In connection with the playgrounds the Eliot School Baths and South Common wading pool were never used to better advantage.

On August 18, 1919, an innovation was tried on our North Common playground by holding a Baby Show. We were assisted by Mrs. Wm. Robertson and a number of women of the Lowell Guild, as well as four trained nurses, together with our own supervisors. One hundred and forty babies were examined and the standards



BUST AND FOUNTAIN AT CARDINAL O'CONNELL PARKWAY

adopted by the judges were those of the children's bureau of the U. S. Government. After about two hard hours' work by those in charge, first prize a five-dollar gold piece was awarded to Miss Alice Victoria Boyle of 289 Pawtucket Street, and second prize, a two and a half dollar gold piece, to Miss Marjorie Ruth Bumps of 41 Lupine Road. Mr. Harvey B. Greene of the Playgrounds Committee of the Board was present and made the presentation. A huge crowd was present and all seemed to enjoy the novelty, as well as being satisfied in the way the affair was handled.

* Our playground season was brought to a close on Aug. 29, 1919, with appropriate exercises on all grounds. The industrial work done by the children was placed on exhibition, and inspected by the large crowds present. His Honor the Mayor made a tour of the grounds and seemed to be pleased at the exercises and work of the children.

MOVING PICTURES AND COMMUNITY SINGING

Moving pictures and community singing were staged on the Commons during the summer months twice a week, before tremendous crowds of people. A show was given on the South Common one night, and then repeated the following night on the North Common. We held forth on one occasion on Belvidere Park before a large audience. Good pictures were always obtained and they seemed to be enjoyed by the throng, both young and old. The expense incurred was small indeed, when you consider the great number of people who thoroughly enjoyed these shows. I myself know of no better way to stretch

out our hand toward Americanization than to have these moving picture shows right through the summer in this great cosmopolitan city of ours.

STREET TREES.

During the past year the usual activities have been made with reference to the trees upon our public streets. Strict care and watch has been kept on dead trees and decayed limbs, lest they fall and do damage. We have cut down sixty dead trees, and taken out dead branches in one hundred and forty-nine others, besides trimming out low branches on account of too much shade in ninety-one trees at an expense of \$2648.19. Some twenty young elm trees have been planted on Rogers Street, but they are having a hard time to thrive. It is really a pity to see a young tree stripped of its bark by some thoughtless boy, or gnawed by a horse having a careless driver. Abutters should have pride enough to keep a careful watch of young trees for a few years after they have been set, to see to it that our office is informed of any injury done. Other cities throughout the land are jealous of their trees, enacting more stringent laws than we do as to their protection and care.

It would seem hardly necessary to assert what can be fully demonstrated as the result of successful street planting here, that these trees add to the attractiveness of a street and neighborhood, and favorably influence values of property. They are indeed a valuable improvement, while in a sanitary way the shade of trees is an important consideration.

I would recommend the policy be continued of planting young trees each year particularly on streets in different sections of the city which are now nude of trees; and that they be inclosed by substantial tree guards.

In conclusion may I not thank the Board for its support given during the year, employees of the department for their faithfulness, the city officials, the playground teachers, the newspapers, and the public in general for the many kind favors rendered; and the spirit of co-operation that has been shown the past year.

Respectfully submitted,

JOHN WOODBURY KERNAN,
Engineer and Supt.

SEVENTY-FIFTH ANNUAL REPORT

OF THE

LOWELL CITY LIBRARY

THIRTIETH REPORT

OF THE

LIBRARY TRUSTEES

OF THE CITY OF LOWELL
MASSACHUSETTS

FOR THE YEAR NINETEEN HUNDRED NINETEEN



LOWELL, MASS.

KILBURN PRINTING COMPANY

OLD GRIST MILL

1920

ADMINISTRATION OF THE LIBRARY 1919

Board of Trustees

HON. PERRY D. THOMPSON, MAYOR, *Ex-officio*

EDWARD J. WELCH, M. D.	.	.	.	Term expires	1920
HUGH J. MOLLOY	.	.	.	" "	1921
ALEXIS E. BERTRAND, M. D.	.	.	.	" "	1922
HENRY H. HARRIS	.	.	.	" "	1923
JOHN T. DONEHUE, D. D. S.	.	.	.	" "	1924

Organization

HON. PERRY D. THOMPSON, Chairman

JOHN T. DONEHUE, Vice-Chairman

FREDERICK A. CHASE, Clerk.

Librarian

FREDERICK A. CHASE

Asst. Librarian

ALICE M. MYERS

Assistants

DOROTHY P. WEBSTER

BLANCHE GRAY

ALICE L. DONEHUE

MARY E. DONOHUE

ANNETTE LEMAITRE

VIRGINIA H. LAWLER

Bindery

WALTER H. GILMAN

HARRY C. BOWEN

ROY FRENETTE

Superintendent of Reading Room

STEPHEN T. WYMAN

Librarian of Children's Room

ROSE E. REILLY

REPORT OF THE TRUSTEES FOR 1919

To the Honorable, the Municipal Council of Lowell:

Gentlemen:—The Trustees of the City Library herewith present their annual report for the year 1919.

FINANCIAL STATEMENT

Receipts

Appropriation by Municipal Council....	\$20,900
Fines, etc.	617.34
Transfers from John Davis Fund.....	4,233.01
	\$25,750.35

Expenditures

Salaries	\$15,021.44
Lighting	792.44
Binding	640.05
Periodicals	845.96
Books	1,770.50
Sundries— Printing	\$530.24
Water Tax	47.50
Express, etc.	86.15
Supplies	427.81
Postage	36.29
Repairs	74.97
Miscellaneous	805.70
	\$2,008.66
Delivery Stations	\$438.29
Expenses of Children's Room, Sunday opening and Books, etc., charged to Davis Fund	4233.01
	\$25,750.35

LIBRARY STAFF

During the year the Library has lost two of the older members of the Library Staff. In September Miss Harriet M. Sullivan, after serving the Library very acceptably and faithfully since December, 1905, resigned and in December Miss Bertha G. Kyle also resigned. Miss Kyle had been connected with the Library since December, 1890, and had been Librarian of the Children's Room since its beginning September 21, 1903. As one vacancy already existed there were three vacancies to be filled during the year. Miss Mary E. Donohoe was appointed in April. Miss Virginia Lawler was appointed in October and Miss Rose E. Reilly was appointed at the same time to assume her duties in December on the retirement of Miss Kyle.

A NOTABLE GIFT

An interesting and valuable collection of Venetian Glass, Old Silver, Old China and Samplers were given the Library by the will of Miss N. P. H. Robbins. The sum of two hundred dollars for a suitable glass case was also given by Miss Robbins. The collection to be known as the Robbins collection.

JOHN DAVIS FUND

Income for 1919.

Cash on hand at last report	\$ 779.35	
Interest and dividend earnings on investments and loans	7,027.87	
Received from City of Boston bond matured	10,000.00	
Payment on account of mortgage note	400.00	
Rebate on Taxes	83.42	
		\$18,290.64

Expenditures

Expenses of Children's Room	\$ 915.67	
Expenses of Sunday opening	356.91	
Books purchased for the Library	2,428.60	
Prints purchased	531.83	
2 Shares New Capital Stock Lowell Bleachery purchased	200.00	
Liberty Loan Coupon Bond (10,000 4¼%)	9,372.88	
Cash on hand Jan. 1, 1920	4,484.75	
		\$18,290.64

JOHN DAVIS FUND

LIST OF SECURITIES

Registered Bonds

Name	Due	Rate of Interest	Par Value
Boston & Maine R. R.	1944	4½%	\$11,000.00
Boston & Maine R. R.	1926	4 %	10,000.00
Boston & Maine R. R.	1929	4½%	5,000.00
N. Y., N. H. & H. R. R.	1954	4 %	10,000.00
Illinois Central R. R.	1952	3½%	10,000.00
Boston & Albany R. R.	1952	3½%	4,000.00
Atch., Top. & Sante Fe	1995	4 %	1,000.00
Hartford, Conn.	1923	4½%	10,000.00
City of Fall River	1926	4 %	4,000.00
City of Baltimore	1958	4 %	5,000.00
City of Waterbury, Conn.	1950	4¼%	4,000.00
Liberty Loan Coupon Bond	1938	4¼%	10,000.00
			\$84,000.00

Railroad Stock

No. Shares	Name of Road	Price Per Share	Amount
41	Boston & Maine (Common)	31½	\$1,291.50
39	Boston & Albany	120	4,680.00
1	Nashua & Lowell	125	125.00
1	Concord & Montreal (4th Class)	61	61.00
			\$6,157.50

Manufacturing Stock

No. Shares	Name of Company	Price Per Share	Amount
8	Lowell Bleachery	155	\$1,240.00

Miscellaneous Stock

12	American Tel. & Tel. Co.	98	\$1,176.00
3	Lowell Gas Light Co.	156	468.00
			\$1,644.00

Bank Stocks

No.		Price per	
Shares	Bank	Share	Amount
9	Appleton Nat. Bank, Lowell	108	\$972.00
3	Old Lowell Nat. Bank, Lowell	108	324.00
2	Wamesit Nat. Bank, Lowell	100	200.00
11	Union Nat. Bank, Lowell	200	2,200.00
10	First Nat. Bank of West Newton	170	1,700.00
			\$5,396.00

Savings Bank Book

	Bank	Book No.	Amount
Central Savings Bank		35073	\$212.19

Mortgage Note

A. H.	\$2,000.00
	\$2,000.00

Summary of Investments and Cash Assets

Name of Investment	Val. Mar. 29, '19	Val. Mar. 8 '20	Increase	Decrease
Registered Bonds	\$84,000.00	\$84,000.00		
Railroad Stocks	6,980.00	6,157.50		822.50
Manufacturing Stocks ..	810.00	1,240.00	430.00	
Miscellaneous Stocks ...	1,765.50	1,644.00		121.50
Bank Stocks	5,115.00	5,671.00	556.00	
Savings Bank Book	202.96	212.19	9.23	
Mortgage Notes	2,400.00	2,000.00		
Cash in Bank	679.35	4,805.75	4,125.40	
		\$101,952.81	105,729.44	3776.63 Net Increase

EXHIBITIONS

Hungary, Why we are at War, Belgium, Canal and River Scenes, War, Canary Islands, English Illustrators, Tunisia, Monuments of Belgium.

CONDITION OF THE LIBRARY

New volumes purchased during the year	1,356
Volumes added by gift	91
Volumes added by binding periodicals	115
Worn-out books replaced	68
Duplicates purchased	1,530
Total number of volumes added	3,160
Total number of volumes in the Library.....	105,807
Periodicals and papers subscribed for	244
Periodicals and papers given	33
Number of volumes used, home and reference.....	160,096
Number of volumes consulted in the Reference Room	8,211
Magazines circulated	4,490
Library opened, days	299
Total circulation	160,096
Average daily circulation	535
Largest monthly circulation (March)	17,718
Smallest monthly circulation (July)	10,369
Largest daily circulation (Feb. 15)	997
Smallest daily circulation (July 10)	95
Percentage of fiction read	77.4
Percentage of other classes	22.6
Children's Room circulation	29,806
Daily average	99

LIST OF DONORS 1919

Bailey, Miss	3
Bates, L.	1
Bible Training School, So. Lancaster	5
Buttrick, E. G.	1
Campbell, J. L.	4
Carney, Mrs. G. J.	90
Burroughs Adding Mach. Co. of Detroit	1
Entwistle, Thos. C.	45
Forrest, Mrs. Chas.	12
Henry, F. A., N. Y.	1
Hill, D. J.	1
Hodgman, G. E.	1
Hussey, Rev. A. R.	42
Japan Society, N. Y.	1
Kip, Frederic E.	2
Kittredge H. A.	4
Lowell Temperance Union	1
Manufacturers Aircraft Asso.	1
Neyes, Fortunato S.	1
Payne, G. H.	1
Peterson, Arthur	2
Remington Arms Co.	1
Republican Club, Boston	6
Rogers Hall School	1
State Library, Trenton, N. J.	1
State Normal School, Lowell	22
Stevens, John A.	1
Stevens, Mrs. J. Tyler	1
Yale University Press, New Haven, Conn.	1

STATISTICS IN FORM ADOPTED BY THE AMERICAN LIBRARY ASSOCIATION

City Library, Lowell, Mass.

Annual Report for Year Ending December 31, 1919.

Population, 1920 Census, 112,759

Free for Lending and Reference.

Two delivery stations, namely one at Davis Square, one in
Centralville and several deposit stations.

Main Library open 299 days during year. 66 hours a week
for lending. 72 hours for reading.

Library open Sundays (Oct. to June) for reference and read-
ing 2 to 9 P. M.

Reading Room open Sundays, 9 A. M. to 9 P. M.

Volumes in Library, January 1, 1919.....	102,647
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Added by purchase	1,356
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Added by gift	91
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Volumes in Library, Dec. 31, 1919.....	105,807
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Volumes of fiction lent for home use:

Adult 92,899 Juvenile, 21,293 Total	114,192
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Total volumes lent for home use:

Adult, 117,589; Juvenile, 29,806 Total	147,395
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2521 Borrowers registered during year. Registration period
three years.

277 Newspapers and Periodicals currently received.

New Registration with Three Year Limit.

Applicants received during the year	2,629
Applicants who did not call for cards	108
Number of names registered Dec. 31, 1919.....	29,840
Number of names registered Dec. 31, 1918	27,319
Total registered during the year	2521



ANNUAL REPORT

OF THE

CITY SOLICITOR



FOR THE YEAR ENDING
DECEMBER 31, 1919



LOWELL, MASS.
BUCKLAND PRINTING COMPANY, 72-74 MIDDLE STREET

REPORT

Lowell, Mass., August 3, 1920.

TO THE MUNICIPAL COUNCIL OF THE CITY OF LOWELL,

GENTLEMEN :

I herewith submit the following report of the work of the law department for the year 1919.

During the year the following cases have been disposed of :

SUPREME JUDICIAL COURT

Harry F. Shea vs. Perry D. Thompson.

This was a petition for a writ of mandamus brought in the Supreme Judicial Court by the petitioner, praying that he might be restored as a patrolman in the police department of the City of Lowell, dated November 13, 1919.

A hearing on this matter was held before Mr. Justice Carroll, November 14, 1919, and the petition was dismissed on the same day.

SUPERIOR COURT

27149 *Petition of the Directors of the Boston & Maine Railroad for Alterations of Chelmsford Street Bridge No. 56, Lowell.*

This was a petition of the Directors of the Boston & Maine Railroad for alterations in Bridge 56, crossing Chelmsford Street at a point over the tracks of the said railroad.

Upon said petition the County Commissioner found that public necessity required certain alterations in said bridge and so decreed.

On August 11, 1915, the Directors of the Boston & Maine Railroad, through their attorneys, Edgar J. Rich and Thornton Alexander, filed their petition with the Superior Court for the County of Middlesex for the appointment of a Special Commission to determine which party should carry the decision of said Commissioners into effect and which party should pay the charges and expenses of keeping such bridge or crossing and the approaches thereto in repair, as well as the costs of the application to said Commissioners and to determine all other matters within their province, and on said petition the Court appointed George F. Swain, Esq., William G. McKechnie, Esq., and John F. Meaney, Esq., as a Special Commission to hear the above matter.

By an agreement made and entered into on September 3, 1915, by the County of Middlesex, the Boston & Maine Railroad, the Bay State Street Railway Company, and the City of Lowell, the Boston & Maine Railroad was authorized by all the parties to make the alterations in conformity with the decree of the County Commissioners, without prejudice.

After several hearings before the Special Commission ap-

pointed by the Court, it was decreed by said Commission that, as the share of its costs of said alteration the City of Lowell should pay the cost of the new stairway, amounting to \$1156, the cost of laying the upper layer of planking on said bridge, and eight per cent of the costs of the application to the County Commissioners and of the proceedings before the Special Commission, and should maintain the upper layer of planking.

On June 3, 1918, the City of Lowell, through its City Solicitor filed a motion to recommit the report to the Commission, and upon said motion to recommit, made certain requests for rulings so as to raise the issue of law involved, whether the City of Lowell should be required to pay for the stairway construction, it being the contention of the City, even though the City requested said construction, that the stairway was within the railroad location and that the charge for said construction was not such a charge as could be levied against the City under the Statute. The report of the Commission in all other respects satisfied the City. The Court overruled the motion to recommit, from which overruling the City of Lowell appealed, but on the same day of this appeal, June 12, 1918, the Court ordered its final decree, ratifying, confirming and approving the finding of the Special Commission. On June 17, 1918, the City of Lowell, appealed from the final decree of the Superior Court to the Supreme Judicial Court. This appeal was denied and the decree of the Superior Court was confirmed. Later the City of Lowell paid to the attorneys for the Boston & Maine Railroad \$1156. and interest, for the cost of the construction of the stairway.

Arthur J. Hebert, p. p. a. vs. City of Lowell.

Joseph J. Hebert vs. Same.

These were two separate actions of tort brought in Superior

Court for Middlesex County to recover for personal injuries sustained by Arthur J. Hebert, a minor, while at the Lincoln School playground, on or about August 13, 1916. Both writs were dated December 27, 1918 and returnable the first Monday of February, 1919. The first action was brought in the sum of five thousand dollars and the second action in the sum of two thousand dollars.

These actions were never entered in court.

35206 *Harriet E. Dana vs. City of Lowell.*

This was a petition for a jury to assess damages for the taking of land on the site of the proposed Memorial Auditorium. The petition was dated August 11, 1919 and returnable the first Monday of October, 1919.

The matter came on to be heard before Raymond, J. at the December sitting of the Superior Court. The jury found for the plaintiff in the sum of thirty thousand, three hundred eighty-five dollars, which amount was paid and an agreement for judgment filed with the court.

City of Lowell vs. Lowell Trust Co.

This was an action of tort or contract brought by the City of Lowell in the Superior Court to recover the sum of forty thousand dollars as interest on deposits made by the plaintiff with the defendant during the years 1902 and 1904 to 1916 inc.

The writ was dated March 10, 1917 and returnable to Superior Court on the first Monday of April, 1917.

The case was referred to Joseph Wiggin as auditor, and after several hearings on the matter, Mr. Wiggin filed his report with a finding for the defendant.

City of Lowell vs. Andrew G. Stiles.

Same vs. American Surety Company.

Same vs. National Surety Company.

Same vs. U. S. Fidelity & Guaranty Company.

These are four several actions brought in Superior Court in the year 1917 by the City of Lowell against the defendant Stiles, as City Treasurer of said City, and against the other defendants as sureties on the bonds of said Stiles for the faithful performance of the duties of his office as City Treasurer and Collector of Taxes for the years covered by said bonds, to recover interest due the City of Lowell on daily balances of its moneys deposited with the Lowell Trust Company during the years 1902 and 1904 to 1916 inclusive.

These cases were reported by the justice of the Superior Court to the Supreme Judicial Court for determination of questions of law. The Supreme Judicial Court decided as a matter of law that the defendants could not be held.

33672 *Margaret Vaughan vs. City of Lowell.*

This was an action of tort brought in the Superior Court to recover the sum of five thousand dollars for personal injuries sustained by the plaintiff while traveling on Carter Street opposite the Carter Street School on or about February 17, 1918. The writ was dated October 11, 1918 and returnable to Superior Court for Middlesex County the first Monday of December, 1918.

This matter was settled by vote of the Municipal Council passed July 8, 1919 in the sum of four hundred dollars, and it was agreed that the following entry might be made, "Judgment for the plaintiff in the sum of four hundred dollars, without costs, and judgment fully satisfied."

31280 *Andrew G. Stiles vs. Charles J. Morse et als.*

Same vs. Same.

These were two actions of tort brought in the Superior Court against the defendants, Charles J. Morse, George H. Brown and Francis A. Warnock, commissioners of the City of Lowell, by Andrew G. Stiles, treasurer of said city, for alleged damage and injury to petitioner's standing in the community as a public officer and a citizen. The first writ was dated June 23, 1917 and was returnable the first Monday of February, 1918. Both writs were brought in the sum of five thousand dollars each.

The cases were consolidated and heard in the Superior Court before Brown, J., who for the purpose of having the matter go to the full court in order to determine the law in the case, ruled that the petitioner could recover. The case then went to the jury on a question of damages wholly, and an exception was taken to the ruling of the court. The jury found for the petitioner and this finding was later confirmed by the Supreme Court.

31281 *Edward H. Foye vs. Charles J. Morse et als.*

This was an action of tort brought in the Superior Court against the defendants, Charles J. Morse, George H. Brown, and Francis A. Warnock, commissioners of the City of Lowell, in the sum of five thousand dollars for alleged injury and damage to his reputation and standing as a public officer and as a citizen of the community. The writ was dated June 23, 1917 and returnable the first Monday of August, 1917.

This matter has been concluded by adjustment between the parties.

Bridget Mahan vs. City of Lowell.

This was an action of tort brought in Superior Court for Middlesex County in the sum of five thousand dollars to recover for personal injuries sustained by the plaintiff on or about June 2, 1919 while traveling on Liberty Street in the City of Lowell. The writ was dated October 3, 1919 and returnable the first Monday of December, 1919.

This action was never entered in court.

CASES NOW PENDING IN SUPERIOR COURT

26300 *Edward D. Lyons vs. City of Lowell.*

26302 *Lowell Trust Company vs. Same.*

These are two separate actions of tort brought in the Superior Court in the sum of five thousand dollars each for damage to property caused by broken water pipes in Central, Gorham and Middlesex Streets.

Both writs were dated January 25, 1915 and returnable the first Monday of March, 1915.

These actions were consolidated and referred to Gilbert A. A. Pevey as auditor. Hearings were begun before Mr. Pevey on July 2, 1919 and extended over four days. The auditor rendered his finding generally for the plaintiffs. A motion to commit said report to the auditor was filed with the court and allowed.

30661 *Margaret W. Merrill vs. City of Lowell.*

This is an action of contract brought in Superior Court to recover the sum of \$2772.51, awarded by the Municipal Council of the City of Lowell for the taking of real estate by the City of Lowell on the southerly side of Merrimack Street in said city. The writ was dated February 16, 1917, and returnable the first Monday of April, 1917.

This matter came on to be heard on November 19, 1919 and continued through part of November 20, 1919 before Judge King, who agreed to report the case to the Supreme Judicial Court.

32792 *Fred H. Rourke, Tax Collector vs. Frank Hanchett.*

This is an action of contract brought in Superior Court for Middlesex County in the sum of ten thousand dollars by Fred H. Rourke, treasurer and collector of taxes of the City of Lowell, to recover taxes due the City of Lowell from Frank Hanchett for the year 1916. The writ is dated March 30, 1918 and returnable to Superior Court the first Monday of May, 1918.

This case came on to be heard before Hammond, J., who found for the City in the sum of \$9283.17, with interest from the date of writ. Exceptions were taken by the defendant and the defendant filed a motion for a new trial. On September 15, 1919 a motion to extend the time for filing exceptions was made and allowed.

31995 *James C. Donovan vs. City of Lowell.*

This is an action of tort brought in the Superior Court in the sum of three thousand dollars for damage to plaintiff's property at the corner of Market and Palmer Streets, caused by the overflow of a city water main. The writ is dated May 3, 1917 and returnable the first Monday of July, 1917.

This case came on to be heard at the fall sitting of the Superior Court in Lowell. The City Solicitor moved that the matter be referred to an auditor, and G. A. A. Pevey of Cambridge was appointed by the Court to hear the parties, their witnesses and examine their vouchers; his decision on the matter of damages to be final. Hearings were to commence on January 1, 1920 and to conclude the first day of March, 1920.

36011 *Donald W. McKenzie and Sam Asquith vs. City of Lowell.*

This is an action of tort brought in the Superior Court for Middlesex County in the sum of five thousand dollars to recover for the loss of groceries stored in the cellar of the plaintiffs, due to the alleged backing up of the Church Street sewer, on or about January 30, 1919.

The writ was dated November 19, 1919 and returnable the first Monday of January, 1920.

35707 *Apostolos A. Johnson and George E. Vozeolas vs. City of Lowell.*

This is a petition for a jury to assess damages for the taking of land on the Old Ferry Road for water works purposes. The land was taken by the Municipal Council by order of taking dated May 27, 1919, awarding the sum of thirty five hundred and fifty dollars to the petitioners, which amount said petitioners considered inadequate and refused to accept.

The petition was dated November 19, 1919 and returnable the first Monday of January, 1920.

CASES NOW PENDING IN POLICE COURT

Amedee Archambault vs. City of Lowell.

This is an action of tort brought in the Police Court of Lowell, in the sum of three hundred dollars for damages to automobile belonging to the plaintiff while standing on Central Street on or about March 6, 1919.

The writ was dated May 29, 1919 and returnable the second Saturday in June, 1919.

A plea in abatement was filed by the defendant praying that it be not called upon to answer to the plaintiff on the ground of the lack of proper notice.

An examination of the records at East Cambridge reveals the fact that the following cases have either been dismissed or dropped from the docket:

- 869 *Bernard Delaney vs. City of Lowell.*
- 922 *James Smith et al vs. City of Lowell.*
- 1151 *Patrick O'Hearn vs. City of Lowell.*
- 18230 *John H. Handley vs. City of Lowell.*
- 19911 *Harry P. Graves, Admr., vs. City of Lowell.*
- 20129 *City of Lowell vs. Lizzie Fitzgerald alias.*
- 20176 *Edward Cawley vs. City of Lowell.*
- 20591 *Edwin E. McCauslin vs. City of Lowell.*
- 23009 *Irving L. Hall vs. City of Lowell.*
- 24789 *Estelle H. Richardson vs. City of Lowell.*

28002 *Edward Cavley vs. City of Lowell.*

In the following pending cases no change has been made during the year:

3032 *Bragg Mfg. Co. vs. City of Lowell (U. S. Ct.)*

274 *Peter Curran vs. City of Lowell.*

19073 *Winifred Radigan vs. City of Lowell.*

882 *Hassam Paving Co. vs. City of Lowell (U. S. Ct.)*

1992 }
1957 } *Grade Crossings (1910 Equity.)*

2402 *R. C. Maxwell vs. James E. O'Donnell et al.*

2552 *Thos. F. Carroll et als vs. John B. Clancy.*

28322 *Susan F. Taylor vs. City of Lowell.*

26498 *Dennis J. Cooney vs. City of Lowell.*

28891 *Margaret W. Merrill vs. City of Lowell.*

29008 *George C. Dempsey et al vs. City of Lowell.*

29009 *George C. Dempsey et al vs. City of Lowell.*

28892 *P. Dempsey & Co. vs. City of Lowell.*

27988 *Ida C. Braun vs. City of Lowell.*

27985 *Elizabeth J. Shunny vs. City of Lowell.*

28003 *James Crompton vs. City of Lowell.*

- 27992 *Lowell Day Nursery Association vs. City of Lowell.*
- 27987 *Almira Chapman vs. City of Lowell.*
- 27997 *Joseph Gagnon et al vs. City of Lowell.*
- Benjamin F. Nichols et al vs. City of Lowell.*
- 28896 *Frank Malloreys vs. City of Lowell.*
- 31404 *John H. Rigg, Admr. vs. City of Lowell.*
- 31995 *James C. Donovan vs. City of Lowell.*
- 32376 *Julia E. Cote vs. City of Lowell.*
- 32521 *Alice A. Bagley vs. City of Lowell.*
- 74 *Leo O'Neil vs. City of Lowell.*
- 590 *Sophia Hall vs. City of Lowell.*
- 301 *George H. Jones vs. City of Lowell.*
- 387 *City of Lowell vs. H. D. Oliver.*
- 6838 *John J. McMahon vs. City of Lowell.*

WORKMEN'S COMPENSATION

Forty-eight injuries to employees in the different departments of the city were reported to the law department and investigated during the year 1919; said injuries being divided among the different departments as follows:

Streets and Highways	28
Health	6
Public Property	5
Water Works	4
Police	2
Park	1
Cemetery	1
Charity	1
	48

After investigation of the forty-eight cases reported during the year, compensation was allowed and paid to twenty-three employees. Four others were carried on the payroll, having been brought over from previous years. Several conferences were had during the year with members of the Industrial Accident Board regarding injuries to employees, and one hearing was held resulting in a finding for the City. Phoebe Paris, widow of Henri H. Paris, an employee of the Street Department, requested a hearing on an alleged injury to her husband resulting in his death. Mr. Paris claimed to have been injured on Dec. 6, 1918 while operating a snow plow on Hildreth Street. He died on January 17, 1919. A hearing was held on June 6, 1919 before Frank H. Donohoe, a member of the Industrial Accident Board. Mr. Donohoe found that the weight of evidence tended to show that Mr. Paris' death resulted from other causes and not from any injury that he might have received while in the employ of the City, and the claim for compensation was dismissed.

The total amount of compensation paid to employees during the year was \$4053.22. For medical and hospital services the sum of \$626.25 was dispensed and for printing and other miscellaneous expenditures \$54.90 was paid out, making a total expenditure for the year of \$4734.37 as against \$4761.24 in 1918.

WORK AND BUSINESS OF THE LAW DEPARTMENT

Preparation and Trial of cases in court.

Preparations of Releases, deeds, and other legal documents.

Preparation of Orders, Ordinances, Votes, and Resolutions.

Preparations of Answers in Land Court cases in which the city's interests are affected.

Writing of contracts, formal agreements, and opinions, and giving of advice to the various officers and heads of the city government.

Investigation of minor claims against the city which do not enter court but are disposed of without suit by the municipal council upon the recommendation of the city solicitor.

Investigations of injuries to employees of the city, pursuant to the Workmen's Compensation Act, and the carrying out of the provisions of said act.

Conveyance of Real Estate.

Attendance at Legislative Hearings and at other hearings before the various state boards and commissions where the city has any interest.

The work of the law department is varied, and in addition to the work above set forth many matters of importance are brought to its attention and carried through to a successful conclusion.

WRITTEN OPINIONS RENDERED BY THE CITY SOLICITOR DURING THE YEAR 1919

Jan. 2. PERRY D. THOMPSON: Relative to the appointment of inspectors of milk and collectors of samples of milk.

Feb. 13. RICHARD B. WALSH: Whether the City of Lowell holds title to land now occupied by the Edson School and to the South Common adjoining under such conditions as would make it legally possible to erect an addition to said school thereon.

Mar. 12. LICENSE COMMISSION: Whether or not the provisions of C. 10, Gen. Acts of 1919, apply to special club licenses granted under C. 100, sec. 88, R. L.

Mar. 12. LICENSE COMMISSION: Relative to applications for licenses for operating motor busses, when bond for \$200 is given, in an adjoining town.

Mar. 17. STEPHEN FLYNN: Whether the municipal council may legally make a transfer of any of the licenses provided for by c. 370, Acts of 1904, to one other than the applicant without full and original compliance in each case with said chapter.

May 1. JOHN W. KERNAN: Regarding the organization of the Board of Park Commissioners.

May 6. JAMES E. DONNELLY: Relative to the investment of the principal of the Hapgood Wright fund in Victory Liberty Notes.

May 17. WILLIAM H. RIGBY: Relative to acquiring additional land for public cemeteries.

June 4. BOARD OF REGISTRARS OF VOTERS: Relative to the meaning of "Alphabetical order" as used in sec. 60, c. 835, Acts of 1913.

July 5. LICENSE COMMISSION: Relative to liquor licenses granted under c. 10, Gen. Acts, 1919.

Aug. 14. PERRY D. THOMPSON: Relative to the purchase of a pumping engine to be installed at the West Sixth Street Pumping Station.

Aug. 15. BOARD OF CEMETERY COMMISSIONERS: As to the rights of the City of Lowell in the Hildreth Cemetery, in the Cemetery opposite the Coburn Mission on Varnum Avenue, and in the Hamblett Cemetery on Riverside Street.

Aug. 21. GEORGE E. MARCHAND: As to the right of the Commissioner of Public Property and Licenses in the matter of the sale of buildings on the site of the contemplated Memorial Auditorium.

Oct. 24. PERRY D. THOMPSON: Relative to dancing in the Harrisonia Hotel.

Dec. 13. PERRY D. THOMPSON: Relative to the issuing of licenses to itinerant vendors.

Dec. 13. BOARD OF REGISTRARS OF VOTERS: Relative to petitions for the recount of votes affecting the election of James E. Donnelly as alderman.

CITY SOLICITORS

1840-1919

Name	Date of Election	Term of Service
Thomas Hopkinson	Apr. 7, 1840	
John A. Knowles	May 31, 1841	
Richard G. Colby	Apr. 13, 1842	
Seth Ames	Aug. 26, 1843	
Isaac S. Morse	July 31, 1849	
Theodore H. Sweetser	Jan. 3, 1853	
Arthur P. Bonney	Jan. 9, 1855	
Alpheus R. Brown	Jan. 8, 1856	
Robert R. Caverly	Jan. 12, 1857	
Alpheus R. Brown	Jan. 4, 1858	
Theodore H. Sweetser	Jan. 3, 1859	
Alpheus R. Brown	Jan. 6, 1862	Jan. 6, 1862 to Mar. 1, 1864
Tappan Wentworth	Feb. 23, 1864	Feb. 23, 1864 to Mar. 1, 1867
George Stevens	Jan. 7, 1867	Mar. 1, 1867 to Mar. 1, 1870
John F. McEvoy	Jan. 25, 1870	Mar. 1, 1870 to Mar. 1, 1872
Joshua N. Marshall	Jan. 1, 1872	Mar. 1, 1872 to Mar. 1, 1873
John F. McEvoy	Jan. 6, 1873	Mar. 1, 1873 to Mar. 1, 1875
George F. Richardson	Feb. 9, 1875	Mar. 1, 1875 to Mar. 1, 1880
George F. Lawton	Jan. 5, 1880	Mar. 1, 1880 to Mar. 1, 1883
Nathan D. Pratt	Jan. 1, 1883	Mar. 1, 1883 to Mar. 1, 1885
George F. Lawton	Jan. 5, 1885	Mar. 1, 1885 to Mar. 30, 1886
John J. Pickman	Apr. 6, 1886	Apr. 6, 1886 to Mar. 1, 1887
William F. Courtney	Jan. 14, 1887	Mar. 1, 1887 to Mar. 1, 1888
Frederic T. Greenhalge	Jan. 24, 1888	Mar. 1, 1888 to Mar. 1, 1889
Larkin T. Trull	Jan. 7, 1889	Mar. 1, 1889 to Mar. 1, 1891
John J. Hogan	Feb. 10, 1891	Mar. 1, 1891 to Aug. 5, 1895
Francis W. Qua	Aug. 1, 1895	Aug. 5, 1895 to Mar. 1, 1903
William A. Hogan	Jan. 6, 1903	Mar. 2, 1903 to Mar. 1, 1905
J. Gilbert Hill	Jan. 3, 1905	Mar. 1, 1905 to Mar. 1, 1909
William W. Duncan	Jan. 4, 1909	Mar. 1, 1909 to Jan. 2, 1912
J. Joseph Hennessy	Jan. 2, 1912	Jan. 2, 1912 to Feb. 15, 1916
Harold A. Varnum	Feb. 5, 1916	Feb. 5, 1916 to Jan. 30, 1917
William D. Regan	Feb. 9, 1917	Feb. 9, 1917 to

LIST OF JURORS

FOR THE

CITY OF LOWELL

FOR THE YEAR

1920



LIST OF JURORS

A

Abbott, James M., 24 Fairmount st., broker.
Abbott, Leon D., 5 Parkview ave., foreman.
Achin, Henry, Jr., 9 Plymouth st., insurance.
Achin, Victor, 749 Merrimack st., dealer.
Achin, Wilfred J., 358 Colonial ave., chauffeur.
Adams, John M., 54 Gates st., painter.
Adams, Smith J., 11 Gilbride terrace, salesman.
Adams, Walter S., 49 Sixth st., machinist.
Adsit, Alvaro W., 228 East Merrimack st., second hand.
Ahearn, Joseph J., Jr., 16 Leroy st., blacksmith.
Alexander, J. Walter, 774 Moody st., clerk.
Allard, Henry, 3 Lilley ave., clerk.
Allard, Joseph J., 114 Ennell st., storekeeper.
Allen, Walter M. N., 39 Elliott st., machinist.
Anderson, August, 23 Lundberg st., operative.
Anderson, Charles E., 7 Bowden st., molder.
Andrews, John A., rear 11 So. Whipple st., leatherworker.
Andrews, J. Munn, 256 Andover st., manufacturer.
Archambault, Amedee, 742 Merrimack st., undertaker.
Archambault, Henri A., 742 Merrimack st., undertaker.
Armistead, Robert R., 126 West Meadow rd., dealer.
Ashton, John T., 60 Orleans st., second hand.
Ashworth, James, 137 Stackpole st., gentleman.
Asselin, Charles A., 148 Ennell st., electrician.
Atherton, Charles S., 12 Cheney pl., clerk.
Atkinson, Thomas B., 404 Stevens st., draughtsman.
Ayer, William A., 27 Varnum ave., plumber.
Ayotte, Edward, 83 Salem st., operative.

B

Bachelder, Harry B., 158 Mt. Vernon st., manufacturer.
Batchelder, Mark O., 650 Stevens st., overseer.
Bagley, Patriek J., 239 School st., dentist.
Bagshaw, Charles H., 79 Wedge st., manufacturer.
Bagshaw, Walter H., Jr., 148 Sanders ave., Mfrg.
Balfrey, John, 65 Congress st., shoemaker.
Baneroft, Frank M., 7 Brookside st., motorman.
Banks, Isaac, 133 Howard st., operative.
Bardzik, John, 41 Lakeview ave., barber.
Barker, Edgar H., 9 Mt. Hope st., instructor.
Barlofsky, Archie, 135 Howard st., clerk.
Barnes, Henry W., 30 Huntington st., banker.
Barber, Jesse, 76 Congress st., bleachery.
Barber, Joseph, 252 Pawtucket st., mfrg.
Barrett, Andrew E., 77 Mt. Vernon st., merchant.
Barry, Charles E., 16 Spaulding st., operative.
Barry, Henry, 122 Farmland rd., operative.
Barry, Patrick H., 13 Sycamore st., watchman.
Barry, John H., 15 Lombard st., plumber.
Barry, George, 20 Lombard st., machinist.
Barry, William A., 34 Laurel st., clerk.
Barry, William J., 4 Hanks st., manufacturer.
Basnett, George B., 625 East Merrimaek st., barber.
Bassett, Cyrus R., 23 Meadowcroft st., U. S. C. Co.
Baxter, Fred G., 24 May st., conductor.
Baxter, John J., 150 Agawam st., U. S. C. Co.
Bean, Ralph M., 15 Eighth ave., secretary.
Beane, Thomas J., 104 Pleasant st., life insurance.
Beaudry, Franeois, 111 Fulton st., teamster.
Beaulieu, John H., 202 Hildreth st., dealer.
Beaumier, Joseph, 11 Second st., clerk.
Beauregard, Oliver J., 868 Moody st., clerk.
Beck, Edmund, 107 Warwick st., laborer.
Belanger, Clovis, 768 Merrimack st., solieitor.
Bell, Frank A., 19 Wachusett st., machinist.
Bellefontaine, Miller, 130 Riverside st., furniture dealer.
Beharrell, Joseph R., 121 Wentworth ave., carpenter.
Berard, Adelard, 577 Middlesex st., expressman.
Bergeron, Albert, 510 Moody st., salesman.

Bergeron, Philippe O., 825 Merrimack st., musician.
Bernier, Arthur J., 444 Fletcher st., clerk.
Bernston, Olaf A., 121 Moore st., dealer.
Bernier, Samuel J., 22 Rockdale ave., clerk.
Berry, Daniel F., 10 Marsh st., barber.
Best, Arthur H., 42 B st., J. C. Ayer Co.
Bibeault, Alfred, 110 Ford st., carpenter.
Bibeault, Alfred W., 135 Liberty st., operative.
Bibeault, Alphonse, 21 Wilder ave., stone cutter.
Billingsley, Fred, 320 Wentworth ave., liquor dealer.
Bishop, Herbert L., 28 May st., paymaster.
Bishop, Warren A., 123 Agawam st., R. R.
Bissonnette, Henry, 97 Aiken ave., dealer.
Bissonnette, John, 47 Mt. Washington st., painter.
Bissonnette, Zephyrin J., 300 Varum ave., telegrapher.
Bilodeau, Napoleon J., 713 Merrimack st., undertaker.
Bixby, Albert H., 24 Marlboro st., salesman.
Blanchette, Tanerede L., 32 Decatur st., clerk.
Blazon, Donat, 131 Gershom ave., printer.
Blodgett, Emery F., 585 Chelmsford st., bookkeeper.
Blood, Cyrus F., 222 High st., clerk.
Blowen, Herbert, 25 Harrison st., ice cream maker.
Boardman, Edward, 467 Merrimack st., dealer.
Boardman, J. Harry, 710 Andover st., banker.
Boland, James J., 210 Appleton st., manager.
Bonin, Honore, 90 Aiken st., barber.
Boucher, George H., 125 Dalton st., dealer.
Boudreau, John B., 53 Mt. Hope st., grocer.
Boughton, John L., 146 Chelmsford st., laborer.
Boulais, Arthur N., 8 Dracut st., clerk.
Boule, Lazare, 538 Moody st., operative.
Boulger, John B., 835 Moody st., merchant.
Bourdon, Michael, 807 Merrimack st., carpenter.
Bourque, Philip R., 19 Lombard st., carpenter.
Bourret, Charles E., 910 Lakeview ave., plumber.
Bowles, Willis J., 244 W. Sixth st., operative.
Box, John W., 7 Lyons st., beltmaker.
Boyd, Joseph F., 61 Bartlett st., manager.
Boyle, James H., 110 Congress st., conductor.
Braden, Thomas H. 320 Wilder st., Depot Taxi Co.
Branchaud, Alberic A., 15 Dana st., manager.

Branchaud, Charles E., 9 Somerset st., clerk.
Bray, Richard, 23 Belrose ave., master mechanic.
Brassard, Maurice, 4 Butterfield st., clerk.
Brassard, Henry J., 68 Mt. Hope st., chauffeur.
Brault, Aristide, 15 Cambridge st., packer.
Breen, John P., 9 Lyons st., U. S. C.
Breen, Stephen D., 57 Crawford st., ins. agent.
Brennan, George F., 31 Crowley st., Lowell Gas Lt. Co.
Brennan, Owen E., 26 Crowley st., hardware dealer.
Brierley, Eugene L., 74 So. Loring st., painter.
Briggan, George F., 22 Royal st., clerk.
Brigham, Charles R., 99 So. Walker st., manager.
Boughton, John L., 146 Chelmsford st., laborer.
Brigham, Charles R., 70 Queen st., clerk.
Brimigion, Caleb, 58 Agawam st., bleachery.
Brissette, Rupert N., 5 Crescent st., clerk.
Broadbent, John W., 42 Maple st., weaver.
Brodeur, Arthur, 13 Gold st., clerk.
Brodeur, Arthur J., 546 Middlesex st., clerk.
Brock, Charles F., 47 Seventh ave., clerk.
Brogan, Frank M., 88 Mt. Vernon st., insurance.
Brogan, Joseph, 80 Mt. Washington st., machinist.
Brosnahan, Patrick H., 796 Lawrence st., liquor dealer.
Brosnan, Patrick T., 38 Second ave., salesman.
Brosseau, Albert, 16 Lawton st., machinist.
Brosseau, Charles G., 43 Essex st., clerk.
Brousseau, Pierre A., 43 Essex st., clerk.
Bourgeois, Gustave M., 76 Mt. Hope st., clerk.
Brown, Frederick T., 27 South Whipple st., U. S. C. Co..
Brown, James T., 53 Tolman ave., operative.
Brown, Patrick, 198 Cross st., operative.
Brown, Patrick W., 8 Marsh st., operative.
Brown, Patrick H., 980 Varnum ave., brakeman.
Brown, William J., 23 Chase ave., clerk.
Bruin, Michael J., 43 Varney st., janitor.
Brunelle, Arthur J., 849 Moody st., clerk.
Brunelle, Oliva, 33 Gershom ave., operative.
Buckley, James H., 23 Starbird st., cigarmaker.
Buckley, John T., 11 Livermore st., painter.
Buote, Michael, 407 Moody st., operative.
Burbank, Edgar P., 43 Second ave., operative.

Burbank, Percival P., 14 Eighth ave., dealer.
Burbeck, William J., 32 Sheldon st., retired.
Burgoyne, John J., 3 Cedar st et., water works.
Burke, Edward N., 216 Nesmith st., retired.
Burke, William P., 30 Abbott st., watchman.
Burkinshaw, Joseph, 25 Marlborough st., druggist.
Burns, Arthur G., 160 Pine st., clerk.
Burns, Franeis A., 117 Staekpole st., bookbinder.
Burns, George E., 756 Central st., elerk.
Burns, James E., 23 State st., laborer.
Burns, Charles H., 69 Fourth st., barber.
Burns, Joseph F., 18 Bellevue st., elerk.
Burt, John W., 16 Sargent st., beamer.
Burt, Walter N., 385 Walker st., clerk.
Burrill, John F., 612 Beacon st., elerk.
Butler, John R., 159 Broadway, waiter.
Buttermore, John F., 58 Agawam st., tanner.
Byam, Arnold A., 12 Albert st., real estate.
Byam, Otis, 79 Canton st., milk dealer.
Byam, George A. Jr., 198 Methuen st., real estate.

C

Caddell, Peter MacGregor, 94 Viola st., overseer.
Cadorette, Joseph, 118 Ennell st., mason.
Cady, George L., Jr., 150 Mt. Vernon st., box maker.
Cady, Louis, 629 East Merrimaek st., park dep't.
Caddell, John B., 37 Viola st., patternmaker.
Calnin, Martin, 7 Porter st., clerk.
Callahan, George T., 122 Humphrey st., advertiser.
Callahan, Phillip H., 82 Beacon st., painter.
Callery, Bartholomew, 24 Bourne st., Health Dept.
Calnan, Cornelius F., 84 Forrest st., U. S. C. Co.
Camire, Evariste A., 753 Moody st., storekeeper.
Cameron, James, 105 Georgia ave., dealer.
Campbell, Abel R., 23 Harris ave., real estate.
Campbell, Frank J., 711 Westford st., druggist.
Campbell, Frederiek S., 55 Keene st., asst. boss.
Campbell, George M., 20 Nesmith st., dealer.
Campbell, Thomas J., 848 Moody st., dealer.
Campbell, James C., 285 Central st., operative.

Campbell, John, 53 Keene st., chauffeur.
Cannon, Michael F., 69 Loring st., printer.
Cantin, Eugene H., 104 School st., real estate.
Clark, Joseph M., 35 Oak st.
Clark, T. Frank, 35 Oak st.
Carmichael, James H., 59 Huntington st., overseer.
Carney, Edward B., 25 Plymouth st., banker.
Caron, Amedee, 99 Ennell st., tailor.
Caron, Joseph, 74 Branch st., carder.
Carpenter, George H., 43 Royal st., B. & M.
Carrier, Joseph, 208 Cumberland rd., dealer.
Carrigg, John J., 35 Third st., stage manager.
Carroll, Daniel F., 216 Thorndike st., master plumber.
Carroll, John J., 97 Crawford st., machinist.
Carroll, Joseph P., 780 Chelmsford st., nurse.
Carroll, William A., 97 Crawford st., druggist.
Casey, James B., 603 Chelmsford st., manufacturer.
Casey, James J., 815 Chelmsford st., manufacturer.
Cassidy, Frank A., 8 Livermore st., assistant janitor.
Cawley, William F., 85 Rogers st., clerk.
Chaloux, William L., 88 Bartlett st., manager.
Champagne, Eusebe, 4-455 Moody st., musician.
Chandler, George R., 107 Holyrood ave., teller.
Chapman, Herbert L., 48 Walker st., printer.
Chappell, Francis, 18 Ash st., laborer.
Charron, Edmond J., 142 Grand st., machinist.
Charron, Sylva, 134 West st., chef.
Cheney, Frederick R., 36 B st., tannery.
Chippendale, Ernest W., 205 B st., wire works.
Choate, Albert H., 40 Hawthorne st., drug clerk.
Chouinard, Zenon, 689 Lakeview ave., repairer.
Chretien, Joseph A. N., 159 Ludlam st., floor walker.
Christman, Eustache, 154 Woburn st., grocer.
Cinqmars, Euclide, 16 Endicott st., operative.
Claffy, John W., 28 Lawrence st., second hand.
Clapp, Harry C., 17 Marlborough, dealer.
Clancy, Arthur F., 48 Fisher st., conductor.
Clancy, John, 198 Riverside st., dealer.
Clancy, Peter, 560 Broadway, machinist.
Clark, Cornelius E., 228 High st., retired.
Clark, George M., 222 High st., moulder.

Clay, Harry E., 10 Orford st., operator.
Clement, Charles M., 295 Foster st., carpenter.
Cleary, John H., 149 E. Merrimaek st., clerk.
Clinton, William H., 69 Agawam st., B. & M. R. R.
Clowery, John J., 10 Alder st., barber.
Coates, David D., 62 Noreross st., foreman.
Coburn, Harry W., 214 Third st., dentist.
Coburn, Joseph V. B., 215 Mammoth rd., grocer.
Coburn, Clarence B., 215 Mammoth rd., retired.
Cochrane, Delwin A., 133 Moore st., clerk.
Coffey, James J., 21 Marginal st., dealer.
Coffey, Humphrey, 130 Adams st., provisions?
Coffey, Timothy J., 21 Marginal st., grocer.
Cogger, John H., 80 White st., printer.
Cogger, Patriek, 438 Riverside st., contractor.
Coggeshall, Frederick H., 38 Nichols st., clerk.
Cole, Fred H., 727 East Merrimaek st., foreman.
Cole, John W., 14 Fairfield st., restaurant.
Cole, John H., 69 Bartlett st., operative.
Coleman, Joseph H., 881 Bridge st., painter.
Collins, Cornelius E., 394 High st., real estate and insurance.
Collins, William E., 145 Andrews st., lather.
Comerford, Charles P., 32 Nineteenth st., grocer.
Conant, Herbert J., 16 Grove st., clerk, B. & M. R. R.
Connolly, John F., 108 Agawam st., wool sorter.
Connor, Bernard A., 386 Fletcher st., water works.
Connor, Edward, 48 May st., second hand.
Connor, Francis P., 71 Richardson st., superintendent.
Connor, John P., 445 Merrimaek st., retired.
Connors, Charles, 103 Westford st., clerk.
Conroy, Robert F., 153 Appleton st., manager.
Conroy, John, 509 East Merrimaek st., operative.
Conroy, Thomas, 124 Bartlett, clerk.
Conway, George F., 61 Hoyt ave., provisions.
Conway, John T., 169 Saunders ave., express.
Conway, Richard, 15 Windsor st., clerk.
Cooney, Dennis J., 649 Westford st., liquor dealer.
Corbett, John H., 14 Burns st., provision dealer.
Corcoran, John J., 438 Fletcher st., asst. ticket agent.
Corcoran, Joseph N., 40 Fort Hill ave., printer.
Cosgrove, Christopher, 432 Pleasant st., agent.

Cossette, P. Napoleon, 33 Wannalancit st., real estate.
Cossette, Jeffrey, 40 Sparks st., dealer.
Costello, Robert, 497 School st., foreman.
Cote, Charles A., Jr., 52 Coral st., auto livery.
Cote, Raoul, 161 East Meadow rd., machinist.
Cottrell, William H., 11 Viola st., printer.
Coughlin, James, 406 Stevens st., shoemaker.
Coupe, Matthew, 467 Merrimaek st., retired.
Cover, Frank G., 30 West Bowers st., dealer.
Cox, Terence J., 239 Stackpole st., barber.
Coyne, John J., 33 St. James st., salesman.
Craig, Peter R., 59 Porter st., superintendent.
Crane, Eugene F., 517 Westford st., real estate.
Cornellier, Louis J., 479 Moody st., operative.
Cottrell, Thomas S., 44 Crowley st., chiropodist.
Craig, Malachy, 9 South Whipple st., U. S. C. Co.
Crawford, John C., 24 Maitland ave., blacksmith.
Crockett, Harry B., 19 Liberty st., clerk.
Crockett, Wallace W., 19 Liberty st., wheelwright.
Cronin, Cornelius F., 344 Varnum ave., clerk.
Cronin, Dennis, 5 James ct., waiter.
Cronin, Joseph L., 347 High st., reporter.
Cronshaw, John, 4 Crane ave., inspector.
Crosby, Burton H., 111 Moore st., mason.
Crosby, Frederick H., 14 Whidden st., plasterer.
Crosby, Sterling B., Middlesex pk., real estate.
Crowley, Robert E. Jr., 115 Fort Hill ave., real estate.
Cruikshank, Alexander, 20 Chelmsford st., dealer.
Cryan, Thomas E., 132 Grove st., conductor.
Cuff, John H., 18 Agawam st., moulder.
Cuff, Thomas F., 18 Agawam st., dentist.
Cuff, Thomas S., 195 Moore st., druggist.
Cull, Thomas F., 249 East Merrimaek st., steam fitter.
Cumiskey, Arthur J., 168 Prineeton st., automobile dealer.
Cunningham, Clarenee, 37 Durant st., steward.
Cunningham, Fred W., 27 Fay st., shuttle maker.
Cunningham, Henry, 44 We. Fifth st., moulder.
Cunningham, Samuel S., 129 Moore st., confectioner.
Curtin, David, 150 West Sixth st., conductor.
Curtin, Edward A., 514 East Merrimack st., barber.
Curtin, Joseph P., 514 East Merrimack st., machinist.

Curran, John, 14 Mt. Grove st., inspector.
Cushing, Joseph L., 32 Mt. Washington st., manufacturer.
Cusiek, James, Jr., 27 Crowley st., clerk.
Cutler, John S., 840 Varnum ave., barber.
Cutter, Benjamin F., 71 Canton st., dealer.
Cutting, Lawrence F., 78 Methuen st., clerk.

D

Dacey, James, 176 Andover st., clerk.
Daidy, Michael A., 445 Merrimaek st., engineer.
Daigle, Henri, 17 Endicott st., operative.
Dalton, Francis M., 55 Nesmith st., stenographer.
Daly, John J., 19 North st., operative.
Daly, John W., 76 Andrews st., clerk.
Daly, William F., 20 Walden st., insurance agent.
Danahy, Frank J., 33 State st., plasterer.
Danahy, James D., 32 State st., plumber.
Danahy, John J., 22 Crowley st., tinsmith.
Dane, George F., 53 Oakland st., B. & M. R. R.
David, Albert W., 234 Gibson st., clerk.
David, Olier, 38 Lilley ave., merchant.
Davis, Fred M., 47 Lundberg st., clerk.
Dawson, John J., 445 Middlesex st., manager.
Day, Frank J., 979 Central st., water works.
Day, James E., 493 Gorham st., agent.
Davis, John, 444 Stevens st., moulder.
Dean, Eugene, 203 Salem st., laborer.
Dean, Eugene F., 203 Salem st., clerk.
Dean, Sam, 36 Chatham st., overseer.
Dearborn, Lafayette A., 12 Totman st., engineer.
Decatur, Herman B., 91 Norcross st., salesman.
Delaney, Thomas B., 92 West st., installer.
Delehanty, William H., 592 Gorham st., brewery worker.
Delorme, Charles E., 368 Hildreth st., dealer.
Demaras, Harry, 14 Gilbride ter., constable.
Dempsey, Robert M., 57 Endicott st., operative.
Denault, Nazaire, 223 Christian st., carpenter.
Denault, Henry, 215 Christian st., tanner.
Derby, Lucius A., 148 First st., electrician.
Dery, Lewis, 63 Lilley ave., mason.

Desaulnier, Olivier L., 14 West Bowers st., clerk.
Descheneaux, Radrick, 767 Moody st., carpenter.
Deslandes, Ambrose, 78 Queen st., barber.
Desmarais, Edelmar S., 941 Lakeview ave., plumber.
Desmond, Daniel A., 19 Wright st., dealer.
Desrosiers, Joseph Z., 43 Sparks st., dealer.
Devlin, James P., 43 Willow st., printer.
Devlin, John, 307 Thorndike st., bowling.
Dextra, Joseph, 518 Merrimaek st., barber.
Dexter, Royal K., 319 Wilder st., dealer.
Deziel, Wilfred C., 750 Merrimack st., clerk.
Diekson, David, 142 Smith st., dealer.
Dilts, Edward J., 24 Rutland st., student.
Dillworth, Daniel F., 95 Agawam st., clerk.
Dineen, Michael J., 25 Oliver st., conductor.
Dion, George, 185 Ludlam st., dealer.
Doherty, Henry P., 78 Bridge st., master painter.
Doherty, John J., 14 Hale st., mattress maker.
Doherty, Michael F., 44 Marion st., confectionery.
Donnelly, Edward J., 32 Lane st., conductor.
Donnelly, John F., 7 Newhall st., grocer.
Donnelly, John H., 22 Holden st., retired.
Donohue, Michael J., 3 Brooks st., salesman.
Drewett, Frank, 42 Plummer ave., machinist.
Donohoe, James H., 45 Coral st., clerk.
Donovan, William H., 26 Madison st., dealer.
Doole, George Lee, 241 Moore st., operative.
Doran, Daniel, 173 School st., assistant superintendent.
Doran, Henry F., 363 Broadway st., trimmer.
Dostaler, Frank X., 105 A st., provisions.
Douglass, John H., 137 Pleasant st., lunch cart.
Dow, James G., 149 B st., student.
Dow, Osear C., 374 High st., clerk.
Dow, William A., 149 B st., plumber.
Doyle, George J., 15 Whipple st., barber.
Dozois, George H., 11 Spalding st., instructor.
Dozois, Hector A., 67 Varney st., machinist.
Dozois, Phillip H., 67 Varney st., operative.
Dragon, Anthony F., 30 Sarah ave., collector.
Drew, John B., 32 Burt st., dealer.
Drinan, George, 537 Merrimack st., machinist.

Drury, John E., 44 Hanks st., plumber.
Dwyer, John, 56 Waverley ave., painter.
Dube, Joseph, Jr., 15 Livermore st., messenger.
Dubois, Joseph, 793 Merrimaek st., insurance.
Dubuque, George H., 196 Merrimaek st., clerk.
Duffy, Martin E., 1054 Bridge st., cigar maker.
Duggan, Francis P., (U. S. C. Co.), 26 Agawam st.
Dufresne, Edward P., 14 Wiggin st., clerk.
Duneklee, Fred W., 62 Lundberg st., foreman.
Dunlavy, John C., 647 Broadway, laborer.
Dunlay, John F., 682 Chelmsford st., truckman.
Dunlay, Patrick F., 16 Corson st., truckman.
Dunn, Charles W., 94 Fort Hill ave., clerk.
Dunn, James J., 16 Ellsworth st., stone cutter.
Dunn, Joseph, 610 School st., dealer.
Dupont, Arthur, 4 Willie ave., fixer.
Durkin, John T., 8 18th st., printer.
Durkin, Thomas J., 77 New Spaulding st., compositor.
Dursthoff, Charles C., 1500 Gorham st., overseer.
Duval, Alfred, 802 Moody st., machinist.
Dwyer, Timothy, 580 Gorham st., clerk.
Dyer, John J., 29 Bridge st., mill worker.

E

Eagan, Thomas E., 93 Nelson ave., clerk.
Edwards, Arthur S., 40 Marginal st., dealer.
Emmott, Walter H., 561 Westford st., manager.
Eno, Pierre T. A., 204 Moody st., agent.
Enright, George W., 775 Bridge st., clerk.
Erdis, Hugh W., 240 Liberty st., merchant.
Erskine, Charles M., 25 Clark rd., real estate.
Estabrook, Howard M., 22 Seventh ave., meat cutter.
Estes, Fred A., 715 Westford st., insurance.

F

Fahey, William J., 862 Central st., plumber.
Fairburn, George C., 15 Clitheroe st., provision dealer.
Fallon, Andrew J., 108 Meadowcroft st., foreman.
Farley, Harry P., 36 Prescott st., bottler.

Farrell, John M., 2 West View st., auctioneer.
Farrell, Samuel T., 358 Wentworth ave., salesman.
Farrington, John C., 182 Perry st., clerk.
Favreault, William A., 190 Pawtucket st., clerk.
Fecteau, Alexis F., 740 Merrimack st., clerk.
Fee, Thomas F., 126 Bartlett st., tailor.
Fels, Max W., 21 Bachman st., clerk.
Fife, James, 46 Merrill st., machinist.
Fielding, Albert, 36 Haines ave., pressman.
Fielding, Joseph, 91 Norcross st., overseer.
Fielding, Joseph E., 637 Chelmsford st., merchant.
Filion, J. Anaclet, 348 Hildreth st., jeweler.
Finlay, Martin B., 115 Andrews st., machinist.
Finlay, William D., 204 Moore st., metal worker.
Finnegan, Frank J., 15 Crane ave., collector.
Finnegan, Daniel T., 11 Sidney st., teamster.
Finnegan, Timothy D., 22 Agawam st., laborer.
Fitzgerald, Thomas J., 55 Grove st., dealer.
Flannery, Charles Thomas, 132 Pleasant st., conductor.
Flather, Frederick A., 68 Mansur st., treasurer.
Fleet, Sidney R., 329 East Merrimack, journalist.
Fleming, Samuel, 35 Methuen st., bootmaker.
Flood, James H., 118 Bartlett st., dealer.
Flynn, Eugene, 160 Agawam st., second hand.
Foisey, Joseph A., 327 Hildreth st., baker.
Foisey, Philip, Jr., 24 Gorham st., cook.
Ford, William Nathan, 15 Harding st., janitor.
Forrest, Charles M., 30 Sanders ave., lumber dealer.
Forrest, Telesphore, 859 Lawrence st., tannery.
Fortier, Joseph M. G., 36 Riverside st., watchmaker.
Fortin, Antoine, 903 Moody st., clerk.
Fortin, Leonce, 43 Plymouth st., manager.
Foye, Charles H., 182 South st., clerk.
Foye, Daniel, 195 B st., dealer.
Foye, John J., 469 Pine st., dealer.
Frawley, David F., 66 Eustis ave., glazier.
Frayne, John F., 114 Rock st., barber.
Frazer, Thomas H., 52 Parker st., driver.
French, Albert F., 213 Park View ave., manufacturer.
French, Vernon A., 334 Mammoth rd., auto livery.
Frost, Charles E., 285 Princeton st., pedlar.

Frye, Austin A., 105 Eighteenth st., druggist.
Fuller, George B., 1524 Gorham st., lumber man.
Fullerton, Robert J., 17 Dutton st., second hand.

G

Gagnon, Joseph A., 67 Mt. Hope st., buyer.
Gallagher, Charles A., 85 Gershom ave., inspector.
Gallagher, Charles J., 191 Pleasant st., druggist.
Gallagher, George, 275 Fayette st., track layer.
Gallagher, James J., 168 Cumberland rd., cigar store.
Gallagher, Thomas J., rear 34 Coburn st., elerk.
Galley, Arthur C., 17 Winthrop ave., draughtsman.
Galley, Calvin E., 17 Winthrop ave., carpenter.
Galley, John E., 79 B st., earpenter.
Galvin, William H., 535 Lawrence st., fireman.
Gamaeche, Emile, 9 Rhodora st., grocer.
Gannon, Daniel J., 71 Dover st., dealer.
Gardner, John J., 17 Waterford st., merehant.
Gargan, Frank, 81 Bartlett st., operative.
Gargan, William, 22 Ware st., brieklayer.
Garland, Arthur W., 27 So. Loring st., railroad elerk.
Garrick, Frederiek, 858 Bridge st., tinsmith.
Garvey, Thomas F., 72 Lilley ave., cigar maker.
Gaudette, George, 1117 Middlesex st., teamister.
Gaudette, Oetave, 44 So. Loring st., wholesale eonfeetioner.
Gauthier, Alfred J., 38 Lilley ave., blaeksmith.
Gelinas, Vietor, 94 Ford st., groeer.
Gendreau, Flavian, Circuit ave., tannery.
Genereux, Hildege, 15 James st., clerk.
Genest, Arthur, 475 Varnum ave., eontraetor.
George, Fred A., 150 Hampshire st., retired.
Gerow, David, 158 Chelmsford st., hay and grain.
Gibbons, Michael, 542 Gorham st., machinist.
Giblin, John J., 176 Ennell st., musieian.
Gilbert, Franz S., 50 Laurel st., overseer.
Gildee, James B., 35 Oak st., elerk.
Gill, Homer J., 28 Walker st., clerk.
Gilman, Albert I., 20 East Pine st., foreman.
Gilroy, Frank A., 145 Merrimack st., printer.
Giroux, Frederick, 156 Riverside st., teamster.

Gilcreast, William J., 43 Forrest st., clerk.
Goldberry, Benard, 61 Howard st., city.
Golden, John F., 8 Butterfield st., clerk.
Gonzales, Havier L., 126 Gorham st., cutler.
Gookin, James, 74 Huntington st., furniture business.
Gookin, John J., 15 Aberdeen st., manager.
Gormley, Joseph H., 11 Lyon st., insurance.
Gordan, J. Eugene, 100 So. Walker st., undertaker.
Gorman, James E., 566 Westford st., shoe dealer.
Grady, John J., 576 School st., laborer.
Grady, William E., 881 Varnum ave., manager.
Gray, Chester, 285 W. Stevens st., insurance.
Gray, Harry, 93 Dover st., provision dealer.
Gray, John J., 236 Plain st., real estate agent.
Grew, Wilbert, 47 Mt. Vernon st., clerk.
Green, John J., 3-37 Bartlett st., laborer.
Greenwood, Robert, 408 Middlesex st., barber.
Goodwin, William B., 111 Chestnut st., organist.
Gionet, Aime, 158 Fourth ave., insurance.
Giroux, Arthur H. R., 227 White st., insurance.
Cryan, John, 27 Bourne st., tanner.
Gulline, Percy, 197 Pawtucket st., mfr.
Guimond, Adelard, 80 D st., brakeman.
Guyette, Walter E., 372 Parker st., real estate.

H

Hackett, David, 16 Crawford st., Water Works.
Haggart, Daniel L., 60 Bartlett st., mule spinner.
Haggerty, Joseph, 125 Grove st., telegrapher.
Haggerty, Timothy, 726 Lawrence st., helper.
Haggerty, Michael, 171 Powell st., blacksmith.
Hale, Aura L., 94 Butterfield st., foreman.
Hale, Milo W., Jr., 9 Glidden ave., clerk .
Halstead, Charles W., 259 Princeton st., elec. lt. station.
Hamel, Alfred, 100 Shaw st., checker.
Hamel, Charles, 203 Ludlam st., contractor.
Hamil, Bernard, 199 Mammoth rd., mason.
Hannaford, George G., 9 A st., plumber.
Hardman, John, 684 Chelmsford st., cabinet maker.

Hanson, James S., 584 Westford st., horse dealer.
Harkins, John J., 14 Walnut st., machinist.
Harriman, John, 517 Chelmsford st., overseer.
Harrison, Joseph W., 566 School st., overseer.
Hart, Daniel J., 52 Colonial ave., master baker.
Hart, John E., 86 West st., janitor.
Hart, John J., 336 East Merrimaek st., conductor.
Hartigan, Chester F., 137 Moore st., shipper.
Hartigan, Thomas T., 137 Moore st., folder.
Hartley, John F., 40 So. Whipple st., machinist.
Hartnet, John J., 105 Liberty st., operative.
Harrison, Clifton B., 16 Bellevue st., machinist.
Hartwell, George W., 25 Delmont ave., foreman.
Harvey, Joseph, 843 Moody st., master plumber.
Hawes, William H., 59 Canton st., broker.
Hayes, Daniel, 73 Fletcher st., motorman.
Hayes, William A., 45 Webber st., conductor.
Healey, John W., 31 Crowley st., operative.
Healey, Thomas, 921 Lawrence st., overseer.
Hearn, James, 50 Corbett st., watchman.
Hebert, Elzear R., 772 Moody st., clerk.
Hemman, Richard C., 245 Stevens st., cashier.
Hennerberry, James, 195 Moore st., operative.
Henry, Daniel P., 140 Andover, truckman.
Hersey, Freeman S., 143 Forrest st., machinist.
Hessian, Thomas F., 30 Chippewa st., machinist.
Hetu, Hermidas, 12 Dane st., second hand.
Hersome, Albra, 22 Ash st., engineer.
Hickey, Walter, 643 Westford st., foreman.
Higgins, John J., 135 Andrews st., undertaker.
Higgins, Joseph J., 84 Mt. Washington st., grocer.
Hiland, Michael, 25 Ash st., operative.
Hill, Frank B., 27 Bellevue st., dealer.
Hill, James, 37 Whipple st., motorman.
Hill, James G., 24 Myrtle st., painter.
Hilliard, William B., 589 School st., machinist.
Hoar, Martin J., 31 London st., folder.
Hoar, Michael H., 161 Walker st., insurance.
Hodnett, Richard A., 622 Stevens st., B. & M.
Hogan, James J., 36 Cosgrove st., provisions.
Hogan, John, 54 Bartlett st., shoemaker.

Holgate, Benjamin, 97 Grove st., accountant.
Holmes, George, 17 Shaffer st., elerk.
Holmes, Percy, 837 Lakeview ave., wool sorter.
Hopkins, Harry A., 190 A st., musician.
Hosmer, Cecil N., 147 Andrews st., clerk.
Horne, Fred, 150 Westford st., dealer.
Houde, Theotime, 27 Sarah ave., clerk.
Howell, Wakefield D., 69 Nichols st., elerk.
Howes, George E., 131 Varnum ave., salesman.
Howes, Walter I., 22 Brookside st., stockfitter.
Hoyle, Albert, 124 Mt. Hope st., plumber.
Hoyle, Richard, Jr., 101 Congress st., laborer.
Hughes, Joseph, 105 So. Highland st., grinder.
Hudson, James E. A., 11 Hazeltine st., conductor.
Hull, Frank B., 606 Stevens st., foreman.
Humphriss, Frederiek G., 70 Smith st., oiler.
Humphrey, Edson K., 43 Bellevue st., foreman.
Humphriss, Herbert H., 70 Smith st., machinist.
Hunt, Leonard D., 234 Cabot st., overseer.
Hunter, James F., 111 Liberty st., barber.
Huntington, Edward W., 69 Stevens st., clerk.
Hylan, John B., 28 Nesmith st., gentleman.
Hyde, Daniel, 42 Humphrey st., machinist.

I

Ingham, Fred, 62 Robbins st., dealer.
Inglis, John J., 52 Hampshire st., clerk.
Ineson, William H., 1 Hampshire st., loom fixer.
Irish, Alanson E., 137 Stackpole st., clerk.
Irwin, John M., 53 St. James st., confectioner.

J

Jackson, John S., 120 Gates st., clerk.
Jalbert, Joseph, 100 Fourth ave., contractor.
Jantzen, Joseph W., 3 Olive st., dentist.
Jean, Amedee, 39 Melvin st., retired.
Jenness, Fred W., 710 Chelmsford st., real estate.
Jennings, Joseph, 859 Lawrence st., retired.
Jennings, Joseph C., 33 South Whipple st., dealer.

Jensen, Otto, 23 Webber st., receiver.
Jewett, Frank E., 1281 Middlesex st., dealer.
Jodoin, Augustus J., 28 Campaw st., operative.
Jodoin, Joseph H., Jr., 23 Claire st., machinist.
Johnson, Francis, 494 Lawrence st., real estate.
Johnson, Michael J., 328 Suffolk st., organist.
Johnson, Curtis W., 416 Westford st., bookkeeper.
Johnson, John H., 487 Andover st., carpenter.
Johnson, Thomas J., 183 Wilder st., clerk.
Johnston, Alexander, 173 Stackpole st., baker.
Johnston, William L., 173 Stackpole st., baker.
Jones, Edwin F., 93 West st., decorator.
Jones, Fred, 440 Westford st., druggist.

K

Kearns, George J., 192 School st., clerk.
Keenan, William F., 15 Otis st., bleachery.
Kelleher, John J., 7 So. Whipple st., provisions.
Kelleher, Michael, 111 Agawam st., driver.
Kelley, Thomas L., 683 Rogers st., Mass. mills.
Kelley, Thomas F., 578 Andover st., clerk.
Kelley, Patrick J., 31 Clare st., machinist.
Kelley, William A., 799 Princeton st., dealer.
Kelley, William M., 32 John st., janitor.
Kelsey, John H., 52 Humphrey st., plumber.
Kenefick, William, 215 Stackpole st., engineer.
Kennedy, James J., 24 Ash st., retired.
Kennedy, William R., 114 Warwick st., electric light trimmer.
Kennedy, Chester A., 63 C st., clerk.
Kennedy, James J., 24 Ash st., manager.
Kennedy, Thomas H., 44 We. Fifth st., barber.
Kernan, John Woodbury, 20 Chelmsford st., supt.
Kershaw, Samuel, 596 Bridge st., dealer.
Kew, Loring R., 266 Princeton st., dealer.
Keyes, Henry J., 9 Fort Hill ave., clerk.
Keyes, Thomas, 694 School st., plumber.
Killerby, Frank, 26 London st., bookbinder.
Killpatrick, Charles T., 27 Maryland ave., real estate.
Kimball, Clarence L., 785 Merrimack st., machinist.
Kimball, George D., 785 Merrimack st., real estate.

King, Walter, 205 Stackpole st., clerk.
King, Joseph D., 67 Bartlett st., lather.
King, Arthur, 205 Stackpole st., electrician.
Kinsella, John F., 50 B st., dealer.
Kirwin, George A., 30 Agawam st., clerk.
Kirwin, John W., 919 Lawrence st., nickel plater.
Kirwin, Thomas J., 919 Lawrence st., operative.
Kittredge, Horace V., 34 Third ave., mason.
Kivlan, John H., 73 Moore st., bookkeeper.
Knapp, Fred L., 76 Florence ave., clerk.
Knowlton, Harry W., 24 Monadnock ave., draughtsman.

L

Labrie, Eugene, 2-103 Tucker st., manager.
Laflamme, Gerdia J., 1036 Middlesex st., clerk.
Lafleur, Frederick, 1081 Middlesex st.
Lafleur, Harvey A., 44 West Meadow rd., collector.
Lambert, Maurice J., Jr., 342 Westford st., dealer.
Lamberton, John A., 114 So. Loring st., editor.
Landers, Charles J., 27 Wamesit st., printer.
Landry, Edward, 15 Gershom ave., clerk.
Landry, Ernest, 15 Gershom ave., clerk.
Lapoint, Bonnie E., 41 Nichols st., International.
Lapointe, Martin, 41 Nichols st., harness maker.
Larivee, John B., 187 Cumberland rd., conductor.
Larochelle, Elzear J., 69 Arlington st., reporter.
La Rock, Joseph, Jr., 57 Marshall st., operative.
Larrabee, George C., 15 Corner st., merchant.
Latham, Frank, 587 Stevens st., clerk.
Laurin, Carl G., 40 Lundberg st., stone cutter.
Lavelle, Raymond J., 282 Appleton st., advt. solicitor.
Lavallee, Henry, 75 Gershom ave., jeweler.
Lavallee, Rosario, 75 Gershom ave., jeweler.
Lawrenson, John, 6 rear 536 Gorham st., waiter.
Lavoie, Arthur, 114 Ford st., grocer.
Laycock, Joseph G., 39 St. James st., chemist.
L'Esperance, Wilford, 30 Dutton st., druggist.
Leadbetter, Chipman O., 83 Gates st., deputy superintendent.
Leary, Daniel, 118 Mt. Washington st., plumber.
Leary, Dennis F., 339 Lincoln st., real estate dealer.

Leary, Jeremiah F., 99 Pleasant st., janitor.
Lecam, Joseph H., 30 Haines ave., clerk.
Lebrun, Nelson J., 192 Pawtucket st., clerk.
Lederman, Philip M., 65 Stevens st., dealer.
Lee, John J., 147 Gershom ave., salesman.
Lee, Robert J., 55 Laurel st., machinist.
Lee, Michael A., 64 Bartlett st., carpenter.
Lees, George, 25 Congress ave., dyer.
Leggat, Horatius B., 640 Broadway, teacher.
L'Heureux, Henry, 121 Gershom ave., operative.
Lemkin, Morris, 5 Hampshire st., dealer.
Leveille, Arthur, 122 Mt. Washington st., clerk.
Lew, Fred P., 477 Merrimaek st., dyer.
Little, Edwin F., 815 Moody st., stock broker.
Livingston, Cornelius S., 208 Branch st., paymaster.
Livingston, Ephraim D., 257 Coral st., watchman.
Loranger, Louis, 18 Arlington st., clerk.
Loranger, Zephirin, Jr., 16 Ash st., clerk.
Loezau, Napoleon M., 45 Endicott st., clerk.
Lull, George E., 11 Nesmith st., merchant.
Lunt, Jason, 18 Lane st., merchant.
Lussier, Ferdinand, 83 Lilley ave., operative.
Lussier, George H., 903 Moody st., operative.
Lussier, Joseph A., 28 Grand st., machinist.
Lussier, William O., 9 Bowers st., machinist.
Lyle, James E., 19 Summit st., jeweler.
Lynch, Thomas J., 8-33 So. Whipple st., laborer.
Lynch, Patrick, 159 Walker st., barber.
Lyons, Harry, 52 Queen st., ear shops.
Lyons, John K., 7 Westford st., pin maker.
Lyons, Maurice T., 41 St. James st., motorman.
Lyons, Richard, 48 Prospect st., foreman.

M

Mack, John F., 292 East Merrimaek st., clerk.
Mackey, Leonard T., 310 Parker st., dealer.
Madden, James H., 38 Keene st., janitor.
Magee, John J., 169 High st., grocer.
Magras, Joseph, 763 Moody st., clerk.
Maguire, George F., 280 High st., grocer.

Maguire, John E., 35 Mead st., janitor.
Maguire, Martin H., 106 Agawam st., U. S. C. Co.
Maguire, Thomas F., 236 Rogers st., solicitor.
Maguire, Philip F., 57 Sidney st., weaver.
Maguire, Patrick J., 35 Mead st., retired.
Mahan, James F., 57 Beaulieu st., slater.
Mahoney, John P., 37 Laurel st., dealer.
Mahoney, Thomas, Jr., 46 Butterfield st., clerk.
Major, Frank A., 60 Rea st., second hand.
Malony, Frank, 694 School st., stone mason.
Maloney, James R., 97 Pleasant st., laborer.
Maloney, John J., 195 Pleasant st., barber.
Mansfield, George F., 306 Wilder st., bookkeeper.
Mansur, Arthur F., 182 Andover st., retired.
Manseau, Vidal Z., 101 Westford st., clerk.
Marchand, Joseph P., 18 Sargent st., machinist.
Marchand, George E., 15 Harding st.
Marin, Joseph, 213 Pawtucket st., real estate.
Markham, Michael J., 78 Chauncey ave., liquor dealer.
Martell, Hormidas J., 799 Moody st., supt. wire works.
Marden, Philip S., 11 Fairview st., managing editor.
Martin, Edward F., 39 Durant st., retired.
Martin, John H., 196 Mt. Pleasant st., merchant.
Martin, John F., 45 Bartlett st., clerk.
Martin, Mizael, 2-500 Moody st., tailor.
Mason, Charles, 21 Belle ave., machinist.
Masson, Lewis, 21 Belle ave., machinist.
Matte, Edmond, 36 Gardner ave., tinsmith.
Matthews, Nathaniel M., Jr., 1160 Lawrence st., printer.
Maxwell, John F., 124 Hanks st., overseer.
May, Thomas, 1406 Varnum ave., gate tender.
Mayberry, Oliver W., 62 Jenness st., dealer.
Mayberry, Solomon S., 54 Jenness st., real estate.
McAleer, James E., 129 Llewellyn st., clerk.
McAloon, Fred F., 14 Pleasant st., weaver.
McAloon, John B., 112 Sixth st., weaver.
McAvoy, Thomas, 1 Fowler rd., dealer.
McBrayne, Lewis E., 6 Belmont st., asst. managing editor.
McCabe, John J., 196 Merrimack st., brick layer.
McCaffrey, John H., 186 Pleasant st., carpet weaver.
McCann, John, 71 Agawam st., wool sorter.

McCann, Patriek, 412 Lineohn st., dresser.
 McCarron, Anthony, 142 Coneord st., groeer.
 McCarron, Philip J., 76 Coneord st., groeer.
 McCartin, Patriek, 116 Pleasant st., eonduetor.
 McCarthy, Andrew, 656 Gorham st., advertising.
 McCarthy, John P., 9 Pihl st., maehinist.
 McCarthy, John P., 744 Merrimaek st., operative.
 McCarty, John T., 17 Westwood st., janitor.
 McCarty, Patriek, 17 Westwood st., maehinist.
 McCarthy, Timothy F., 28 Butterfield st., elerk.
 McCarthy, James F., Jr., 28 Butterfield st., elerk.
 McCormiek, John E., 108 Livingston ave., elerk.
 McCullough, John, 281 High st., groeer.
 McDonald, John J., 208 Mt. Hope st., seend hand.
 MeElholm, William H., 465 Westford st., plumber.
 MeElroy, Claude R., 73 Agawam st., Maehinist.
 MeElroy, George T., 157 Agawam st., painter.
 MeElholm, James F., 53 Crowley st., electrieian.
 MeElroy, Samuel H., 15 Chestnut sq., operative.
 MeEnaney, Fred, 187 Pleasant st., elaim agent.
 MeEvoy, Arthur M., 104 Tenth st., student.
 McGauvran, William H., 172 School st., merehant.
 McGenniss, James, 23 Read st., insurantee.
 McGilly, Patrick, 75 Hoyt ave., wool sorter.
 McGlinchey, Miehael, 84 Manchester st., groeer.
 McGovern, Patriek, 32 Bartlett, shoemaker.
 McGreevy, Eugene, 216 Foster st., elerk.
 MeHugh, Fred C., 150 Agawam st., tool maker.
 MeHugh, Miehael F., 258 Merrimaek st., elerk.
 MeHugh, William E., 77 Fremont st., eompositor.
 MeInineh, Robert J., 39 Chestnut sq., presser.
 McIntyre, William G., 25 Morey st., elerk.
 McKenna, George B., 13 Cosgrove st., undertaker.
 McKeon, James E., 37 Orehard st., elerk.
 McKenna, George T., 12 West Adams st., eonduetor.
 MeKenzie, Charles T., 140 Methuen st., eartridge shop.
 McKenzie, Leo A., 140 Methuen st., earpenter.
 McKenzie, Herbert J., 140 Methuen st., water dept.
 McMahon, Frank, 28 Willie st., elerk.
 McMahon, Joseph F., 456 Chelmsford st., plumber.
 McMahon, Joseph H., 23 Fourth ave., conduetor.

McMahon, William H., 90 White st., steamfitter.
McNabb, James S., 106 Pleasant st., laundryman.
McNabb, John H., 108 Pleasant st., laundry.
McNulty, Frank B., 38 We. Fifth st., clerk.
McOsker, Frank E., 576 School st., waiter.
McOsker, George M., 17 Liberty st., barber.
McOsker, James F., 39 Grace st., tool maker.
McQuade, Arthur F., 11 Westchester st., fixer.
McQuade, Daniel E., 600 Andover st., dealer.
McQuade, Hugh B., 10 Pleasant st., second hand.
McQuaid, Arthur J., 197 Pleasant st., loomfixer.
McSorley, Christopher, 155 Fayette st., clerk.
McSorley, John F., 332 Wentworth ave., dealer.
McVey, William F., 24 Linden st., clerk.
Mealey, Frank L., 517 School st., copper stamps.
Meehan, Edward J., 289 Concord st., teamster.
Meehan, John P., 26 Cosgrove st., granite cutter.
Meehan, Joseph P., 196 Westford st., clerk.
Meloy, Fred'k F., 30 Fort Hill ave., contractor.
Mercier, Chester, 284 Stevens st., clerk.
Mercier, Ernest B., 38 Aiken ave., baker.
Merrill, Herbert C., 157 Nesmith st., chemist.
Merritt, William H., 262 Concord st., bartender.
Mevis, George B., 869 Bridge st., merchant.
Miller, Charles H., 13 Harrison st., conductor.
Minahan, James H., 74 Aiken ave., operative.
Miskell, Martin J., 292 East Merrimack st., theatrical.
Mitten, Anthony D., 43 A st., blacksmith.
Mueller, George A., 91 Willie st., clerk.
Muldoon, Owen, 259 Branch st., laborer.
Molloy, Andrew, 339 Riverside st., Lowell Water Works.
Monahan, Patrick R., 39 West Fifth st., teamster.
Monette, Hector, 14 Eustis ave., teamster.
Monier, Raoul H., 236 Salem st., floorwalker.
Moody, Percy H., 44 Florence ave., clerk.
Moran, John, 40 Alder st., machinist.
Morrisey, Frank T., 46 Albion st., dealer.
Mosley, Harry, Jr., 16 Forrest st., superintendent.
Mulcahy, M. Wilfred, 109 Rogers st., dealer.
Mullin, Frank, 14 Lundberg st., electrician.
Mullin, J. Eugene, 6 Bleachery st., insurance.

Muleahey, Thomas E., 23 Harvard st., painter.
Mullaney, Michael, 4 Litehfield terr., plumber.
Mulno, Harry O., 324 Boylston st., superintendent.
Mullen, Leon H., 33 Bourne st., clerk.
Mullen, Joseph, 23 Burt st., merchant.
Murphy, Edward Dennis, 24 Sidney st., wine clerk.
Murphy, Frank, 52 Central st., laborer.
Murphy, James F., 35 Potter st., laborer.
Murphy, John J., 25 State st., N. Y., N. H. & H. R. R.
Murphy, Thomas B., 185 Moore st., B. & M. R. R.
Murphy, James A., 86 Hanks st., overseer.
Murray, Frank, 86 Fourth ave., blacksmith.
Murray, John, 139 Chapel st., clerk.
Murray, John J., 128 Hoyt ave., clerk.
Murphy, Joseph F., 278 High st., printer.
Murphy, Thomas F., 189 Parker st., plumber.
Murphy, William J., 74 Agawam st., dealer.
Myers, James W., 21 Albert st., assistant superintendent.

N

Needham, Charles, 615 Chelmsford st., carpenter.
Neeson, John J., 210 Cross st., machinist.
Nelson, James, 528 Andover st., supt.
Nestor, Patrick F., 348 Stackpole st., lamplighter.
Nichols, Henry J., 338 Varnum ave., gardener.
Normanden, Charles, 34 Hancock ave., tailor.
Norton, James J., 581 Chelmsford st., mfg.
Novell, Maurice H., 3-449 Moody st., barber.
Nugent, Michael, 13 L st., operative.

O

Oates, William, 44 Crawford st., machinist.
O'Brien, Daniel J., 90 Park View ave., real estate.
O'Brien, John J., 161 Pleasant st., slater.
O'Brien, Charles T., 162 Church st., laborer.
O'Brien, Joseph H., 768 Merrimaek st., clerk.
O'Connell, Luke, 64 Fay st., retired.
O'Connell, William E., 183 Stackpole st., goldsmith.

O'Connell, William T., 168 South st., clerk.
O'Connell, Richard A., 505 Westford st., dealer.
O'Connor, Edward F., 251 Moore st., grocer.
O'Connor, James, 120 Pleasant st., foreman.
O'Connor, John A., 120 Pleasant st., tanner.
O'Connor, John J., 298 Riverside st., contractor.
O'Connor, Thomas F., 823 Lawrence st., agent.
O'Dea, Daniel, 46 Church st., dealer.
O'Dwyer, Jeremiah J., 148 Midland st., conductor.
O'Hagan, Michael, 29 Albion st., operative.
O'Hare, James, 27 Ellsworth st., teamster.
O'Hare, John P., 27 Abbott st., carpet weaver.
O'Hearn, Thomas B., 282 Riverside st., contractor.
O'Neil, Daniel P., 74 Weed st., manufacturer.
O'Neil, Arthur J., 386 Concord st., clerk.
O'Neill, James J., 129 Crowley st., cashier.
O'Neill, Peter, 120 Bowden st., carpenter.
O'Reilly, Timothy P., 32 High st., barber.
Osgood, Daniel L., 151 Cabot st., overseer.
O'Shea, Michael, 149 Concord st., machinist.
O'Sullivan, Timothy F., 195 Cross st., manager.
O'Toole, John, 175 Middlesex st., clerk.
Orcutt, Frank, 26 Read st., stable.
Ortner, Simon, 114 Shaw st., dealer.
Osterhout, Fred S., 123 Westford st., commercial traveler.
Ouellette, Stephen, 50 Lamb st., operative.

P

Palmer, Forrest E., 1 Barton ave, bookkeeper.
Paradis, Peter, 526 School st., barber.
Parent, Philias, 180 Tremont st., machinist.
Parker, Percy, 880 Broadway, capitalist.
Pascall, Frank, 45 London st., machinist.
Patenaude, Charles S., 233 Walker st., engraver.
Parthenais, David A., 30 Phillips st., clerk.
Patten, Henry N., 235 Mammoth rd., bookkeeper.
Patten, William T., 205 Mammoth rd., dealer.
Payette, Adelard, 20 James st., retired.
Payette, Joseph, 31 Gershom ave., tailor.
Payne, John, 181 Stackpole st., dealer.
Pearson, George F., 24 Grace st., clerk.

Pascall, Frederick, 58 Carlisle st., machinist.
Perkins, Stewart, 43 Gates st., barber.
Perreault, Arthur C., 199 Stackpole st., tanner.
Perreault, George H., 90 Aiken st., salesman.
Perreault, Osear A., 73 Temple st., clerk.
Perron, Joseph, 315 Summer st., barber.
Person, Nils, 82 London st., carpenter.
Phelps, John L., 1-29 Boynton st., carpenter.
Phinney, Albert Warren, 23 Lawson st., surveyor.
Phornare, Anthony, 35 Burns st., clerk.
Pickering, Samuel A., 59 Hastings st., carpenter.
Piekering, George L., 27 Butterfield st., carpenter.
Pinkham, Arthur S., 27 Harrison st., publicity manager.
Plaistead, Burton M., 110 Warwick st., salesman.
Plaisted, Burton W., 110 Warwick st., clerk.
Pollard, Harry G., 96 Mansur st., merchant.
Potter, Charles M., 41 Osgood st., retired.
Power, Warren M., 73 Fletcher st., editor.
Preston, Charles R., 209 Summer st., civil engineer.
Primeau, John, 883 Lakeview ave., motorman.
Prinee, Arthur D., 5 Simpson st., merchant.
Proctor, Charles S., 187 Hovey st., paper dealer.
Proctor, Frank D., 248 Foster st., clerk.
Putnam, Alonzo, Jr., 19 Eighth ave., salesman.
Putnam, Frank H., 12 Marlborough st., dealer.
Putnam, Lewis A., 19 Eighth ave., clerk.
Peltier, Willis, 801 Moody st., jeweler.

Q

Queenan, Eugene C., 48 Varney st., clerk.
Queenan, James J., 5 Harrison st., clerk.
Quigley, John M., 62 Inland st., teamster.
Quinlan, James J., 420 Chelmsford st., eonductor.
Quill, Daniel, 85 Ellis ct., barber.
Quinn, Daniel A., 29 Bridge st., electrieian.
Quinn, Felix, Jr., 67 Bartlett st., laborer.
Quinn, James J., 37 State st., laborer.
Quinn, Michael J., 11 Eighth st., electrician.
Quinn, Timothy, 109 Sherman st., foreman.
Quirbach, Henry C., 21 Fairfax ave., cigar maker.
Quirk, John J., 15 Tenth st., clerk.

R

Racette, John, 527 Moody st., manufacturer.
Ralls, Austin, 36 Third ave., clerk.
Ranlett, Fred M., 445 Merrimack st., dealer.
Ready, Frank E., 221 Hildreth st., carpenter.
Ready, Patrick J., 26 Saratoga st., tanner.
Ready, William B., 10 Bertha st., barber.
Ready, William E., 67 Walker st., dealer.
Reed, William E., 13 Blinkhorn ave., clerk.
Riensterna, Torsten, 43 Sidney st., wool sorter.
Regan, Michael J., 649 School st., motorman.
Regan, Denis, 27 Windsor st., checker.
Reilley, Timothy, 32 High st., barber.
Reilley, Peter W., 137 Hovey st., printer.
Renaud, Willie, 32 Apple st., laborer.
Reynolds, Michael, 139 Chapel st., expressman.
Ricard, Francois Xavier, 420 Fletcher st., jeweler.
Richards, Charles H., 23 Fort Hill ave., collector.
Richards, John B., 770 Moody st., clerk.
Richards, Lyman H., 170 Crawford st., shoe cutter.
Richburg, William H., 232 Varnum ave., shoe cutter.
Rigby, William H., 19 Seventh ave., superintendent.
Riley, Charles, 65 Chestnut st., smoke inspector.
Riley, James F., 22 Ash st., clerk.
Riley, Luke J., 101 Third st., barber.
Riordan, William F., 42 Arlington st., dealer.
Rivet, Francis L., 484 Moody st., dealer.
Roach, Andrew F., 22 Ash st., dealer.
Roach, Patrick Francis, 85 Moore st., bookkeeper.
Roark, James S., 210 Parker st., plumber.
Roark, John J., 210 Parker st., clerk.
Roarke, Joseph H., 412 E. Merrimack st., clerk.
Robertson, Abel, 75 Smith st., foreman.
Robertson, William L., 468 Andover st., merchant.
Robertson, John L., 470 Andover st., furniture dealer.
Robinson, William S., 40 Crowley st., U. S. C. Co.
Rogers, John F., 29 Cedar st., undertaker.
Romain, Isaac B., 49 Norcross st., machinist.
Rooney, John J., 238 Pine st., superintendent.
Rooney, James H., 238 Pine st., dentist.

Rourke, John, 9 Sixth ave., janitor.
Rosseau, Willie, 14 Spaulding, dealer.
Rousseau, Arthur, 14 Spaulding, carpenter.
Rousseau, Napoleon C., 332 East Merrimack st., clerk.
Roux, J. Arthur, 19 White st., contractor.
Rowe, Thomas H., 97 Varney st., clerk.
Rowland, Charles T., 5 Belmont st., wholesale grocer.
Roy, Joseph G., 87 Chestnut st., salesman.
Royal, Garrett G., 32 Phillips st., operative.
Runels, George H., 240 Gibson st., real estate.
Runels, Ralph E., 4 Harland ave., dealer.
Russell, John L., 17 Victoria st., manager.
Ryan, Albert J., 756 Westford st., real estate.
Ryan, Daniel G., 97 Humphrey st., contractor.
Ryan, Patrick, 46 Birch st., clerk.
Robbins, George L., 20 Willow st., engineer.
Rousseau, Ferdinand, 691 Merrimack st., machinist.
Ryan, Stephen J., 73 Stevens st., hatter.
Rynne, Michael J., 76 Elm st., clerk.

S

Sadlier, Charles P., 46 Keene st., tanner.
Sadlier, George E., 46 Keene st., clerk.
Sadlier, Fred A., 46 Keene st., clerk.
Safford, Arthur T., 266 Andover st., engineer.
Salmon, William, 3 Hart ave., laborer.
Sanderson, George, 505 Moody st., operative.
Sanderson, George W., 137 Stackpole st., clerk.
Sargent, George A., 49 Andover st., lineman.
Sarre, Louis, 238 Wilder st., dealer.
Sarre, Leon E., 842 Varnum ave., picture framing.
Saunders, Thomas A., 325 Mammoth rd., agent.
Sawyer, Mark H., 689 School st., engineer.
Sayers, John F., 129 Summer st., conductor.
Savard, Aime E., 311 Mammoth rd., baker.
Savard, John, 717 Middlesex st., machinist.
Seannell, William J., 62 Cambridge st., boiler maker.
Scott, John, 23 Meadowcroft st., janitor.
Scott, William C., 257 Appleton st., machinist.
Scott, W. Norman, 732 Stevens st., bookkeeper.
Scribner, George A., 158 Westford st., machinery dealer.

Sears, Charles, 264 Appleton st., foreman.
Sealey, Eldridge N., 120 High st., engineer.
Secord, Freeland, 3-49 Wilder st., D. L. Gage Co.
Senter, Arthur H., 238 Cabot st., carpenter.
Sharkey, John W., 8 Carter st., salesman.
Sharkey, Michael J., 159 Smith st., real estate dealer.
Shaw, James, 279 Westford st., clerk.
Sheehan, James A., 30 Fort Hill ave., clerk.
Sheehan, Michael J., 46 Agawam st., conductor.
Sheehy, James, 3 Pleasant st., provision clerk.
Shepard, Charles S., 100 Hanks st., steam fitter.
Sherman, Leonard F., 148 Princeton st., shoe manufacturer.
Short, Harry W., 45 Moore st., machinist.
Sicard, Armand V., 720 Moody st., shoemaker.
Sicard, Jean B., 130 Avon st., dealer.
Sidebottom, John W., 647 Chelmsford st., foreman.
Silcox, Samuel, 19 Robert st., machinist.
Silver, Fred W., 94 So. Loring st., machinist.
Simmons, Ralph A., 128 Westford st., clerk.
Slattery, Charles D., 73 Pleasant st., clerk.
Slattery, Edward F., Jr., 122 Hoyt ave., real estate.
Smith, Charles P., 314 Nesmith st., real estate.
Smith, Chester F., 250 Foster st., travelling man.
Smith, Edward A., 425 Broadway st., machinist.
Smith, Henry A., 42 Mansur st., insurance.
Smith, Henry, 37 Varnum st., barber.
Smith, Omer, 78 Aiken st., janitor.
Smith, Orange V., 812 Stevens st., machinist.
Smith, Thomas M., 41 Coral st., clerk.
Smith, Walter, 36 State st., machine repairer.
Smith, William F., 58 Seventh st., machinist.
Smithson, Angelo L., 5 Myrtle st., overseer.
Somerset, Alfred J., 104 Woodward ave., clerk.
Sonbaum, Victor T., 10 Sidney st., carpenter.
Southam, Brook, 130 Westford st., overseer.
Spence, George T., 236 Chelmsford st., mfr.
Stanley, Harry L., 135 Beacon st., coal dealer.
Stanton, John B., 23 Newhall st., wool sorter.
Starr, George S., 144 High st., weaver.
Stearns, Frank K., 122 Eleventh st., laundry.
St. Cyr, Adelard, 110 Bartlett st., fireman.

St. Hilaire, Arthur, 110 Ford st., operative.
St. Hilaire, James, 15 Second ave., mason.
Stone, Edward F., 60 Lawrence Corp., Rae st., operative.
Sturtevant, Augustus L., 32 Brookside st., elerk.
Stafford, William, 787 Moody st., elerk.
Stewart, Arthur A., 12 Chester st., instruetor.
Stiekney, Charles, 599 School st., inventor.
Surprenant, Joseph, 812 Merrimack st., dealer.
Sileox, Albert E., 45 Dunfey st., machinist.
Sullivan, Daniel, 105 Moore st., merehant.
Sullivan, Daniel T., 223 Staekpole st., dealer.
Sullivan, Eugene, 55 Bartlett st., tailor.
Sullivan, Eugene P., 84 Maple st., primer.
Sullivan, George S., 33 Butterfield st., elerk.
Sullivan, James E., 785 Broadway, dealer.
Sullivan, John E., 58 Corbett st., B. & M. R. R.
Sullivan, John J., Jr., 114 Beach st., agent.
Sullivan, Michael J., 57 Hampstead, grocer.
Sullivan, Richard H., 28 Franklin st., teamster.
Sullivan, Thomas, A. D., 28 Grove st., dealer.
Sullivan, William H., 724 Bridge st., fish dealer.
Sullivan, William J., 17 Bowers st., plumber.
Sykes, Richard, 17 Roekingham st., overseer.

T

Taylor, Harold S., 672 School st., elerk.
Tansey, John F., 322 East Merrimaek st., eoachman.
Taylor, Samuel A., 12 Chase ave., watehman.
Tellier, Alderic, 236 White st., elerk.
Thibeault, Archie, 68 Lane st., clerk.
Thomas, Charles R., 725 Stevens st., upholsterer.
Thomas, John, 45 Tolman ave., teamster.
Thomas, Robert R., 24 Loring st., electrician.
Thompson, James A., 68 Grove st., box manufacturer.
Thompson, Martin B., 242 Cabot st., overseer.
Thompson, Samuel H., 121 School st., hardware.
Thorpe, James, 100 Riverside st., treasurer Glass Co.
Toomey, Eugene F., 170 Lawrence st., elerk.
Traey, James H., 147 Concord st., laborer.
Tremblay, Onesime, 17 James st., operative.
Trepanier, J. Edmond, 11 Willie ave., piper.

Trottier, William, 60 Hampshire st., journalist.
Trull, George T., 752 Andover st., student.
Turcotte, Arthur E., 553 Fletcher st., clerk.
Turcotte, Louis P., 553 Fletcher st., liquor dealer.
Turcotte, Oswald, 33 Ellis st., baker.
Tully, John J., 533 Lawrence st., clerk.
Tuttle, Clinton P., 17 Wedge st., clerk.
Tuttle, Joseph T., 3 Dane ave., clerk.
Turgeon, Philippe, 50 Chestnut st., machinist.
Twohey, Edward, 14 Madison st., contractor.
Tyler, William H., 30 Epping st., gardener.

V

Vandenberg, William C., 386 Andover st., insurance.
Van Hise, Albert, 46 Bellevue st., pattern maker.
Veevers, Miles, 218 Moore st., agent.
Viney, William B., 22 Tyler st., clerk.
Voisard, Hector, 99 White st., clerk.
Vaughan, John H., 14 Leverett st., boiler maker.

W

Wadleigh, Jude C., 305 Andover st., mill agent.
Walker, George H., 153 Winthrop ave., clerk.
Walker, Everett H., 121 Hall st., agent.
Walker, Hugh G., 18 Pihl st., clerk.
Walker, Roger L., 80 Chestnut st., clerk.
Walker, Thomas C., 80 Chestnut st., druggist.
Walker, William H., 98 South Loring, loomfixer.
Walmsley, John, 666 School st., clerk.
Ward, Lee B., 79 Westford st., clerk.
Walsh, James, 9 Corner st., printer.
Warnock, Francis A., 13 Wamesit st., plasterer.
Watson, Henry L., 84 Rolfe st., printer.
Watson, Peter, 84 Rolfe st., printer.
Webster, Herbert C., 428 Rogers st., toolmaker.
Weilbrenner, Pierre L. H., 74 Branch st., clerk.
Welch, Benjamin F., 160 Shaw st., foreman.
Welch, Richard J., 543 Andover st., plumber.
Welch, John F., 70 Livingston ave., plumber.
Welch, Martin F., 64 Pleasant st., tanner.
Welch, Frederick F., 30 Riverside st., cabinet maker.

Wells, Arthur, 11 Harding st., watchman.
 Wentworth, Ansel W., 35 Woodward ave., operative.
 Westall, William E., 63 Dover st., merchant.
 Weston, Charles F., 32 Colonial ave., belt maker.
 Westwood, John S., 40 Smith st., druggist.
 White, Frank P., 940 Central st., tanner.
 White, James A., 154 A st., agent.
 White, John A., 70 Smith st., B. & M.
 White, John F., 75 Boynton st., clerk.
 White, William T., 86 Belmont ave., manufacturer of leather.
 Whiteley, Wright, 98 Andrews st., dealer.
 Whitney, Walter, 8 Livermore st., machinist.
 Whittet, David W., 258 Rogers st., carpenter.
 Whittier, Stephen T., 55 Fairmount st., paymaster.
 Wilde, Thomas E., 1198 Lawrence st., manager.
 Wilder, William H., 187 Pleasant st., woollen weaver.
 Wilder, William F., 20 Huntington st., plumber.
 Willman, Clarence T., 13 Oliver st., spinner.
 Wilmot, Joseph, 52 Crawford st., superintendent.
 Wing, Charles H., 577 School st., merchant.
 Winn, John J., 29 So. Whipple st., mattress maker.
 Wood, Joseph W., 76 Campaw st., conductor.
 Woodcock, William, 17 Crescent st., second hand.
 Worsnip, Robert S., 850 Lakeview ave., spinner.
 Wyman, Alonzo, 53 Bartlett st., machinist.
 Wyman, Stephen T., 185 Stackpole st., city library.

Y

Yale, George Henry, 64 Lane st., loomfixer.
 Young, Charles F., 627 Central st., decorator.
 Young, William, 430 Lakeview ave., piper.

Z

Ziskind, David, 75 Gates st., dealer.

Election Commission.

HUGH C. McOSKER,
 FRED HARRISON,
 JOSEPH H. MAGUIRE,
 J. OMER ALLARD,

Clerk.

ANNUAL REPORT
OF THE
POLICE DEPARTMENT
OF THE
CITY OF LOWELL
MASSACHUSETTS



1919

ANNUAL REPORT

OFFICE OF THE SUPERINTENDENT OF POLICE,
Lowell, Mass., March 10, 1920.

HON. PERRY D. THOMPSON,
Mayor and Commissioner of Public Safety,
Lowell, Massachusetts.

DEAR SIR:

I most respectfully present to you a report of the work performed by the police department for the fiscal year ending December 31, 1919.

Respectfully yours,

REDMOND WELCH,
Superintendent of Police.

The organization of the police department for the year ending December 31, 1919, was as follows:

Superintendent, Deputy Superintendent, two Captains, one Inspector, six Lieutenants, seven Sergeants, one Police Woman, one hundred thirty regular officers, twenty-four Reserve Officers, one Electrician, one Lineman, four Chauffeurs, one Matron, one Stenographer, one Operator, and one Charman.

Population, estimated, 125,000. Area, 14.1 square miles.

Accepted streets, 144.08 miles. Unaccepted streets, 73 miles.

Appropriation for year, \$257,300.

APPOINTMENTS

The following Reserve Officers were appointed to the regular force during the year 1919:

On January 14, 1919. Henri J. Frechette, William F. Murphy, Louis W. Lapan, Thomas J. Sherry, and Thomas H. Maroney were so appointed.

On June 6, 1919. John P. Clancy, John E. Murphy and Patrick J. Craig were so appointed.

On October 23, 1919. Frank H. Murphy, Charles J. Barry and John J. Leahy were so appointed. Walter L. Kivlin was appointed to the regular force December 12, 1919.

RESERVE FORCE APPOINTMENT

The following named were appointed to the Reserve Force during the year 1919:

Timothy G. Mahoney, John Reardon, Andrew H. Cushing, James P. Morrison, Joseph F. Cryan, Paul M. Spillane, William T. Caveney, Frederick O. McCall, James H. Burns and Edward J. Liston.

RETIREMENTS

The following officers were retired on half pay, and placed on the pension list. Alonzo Page, retired January 9, 1919, and Michael J. Lennon, retired March 25, 1919.

Necrology

Patrolman Bartholomew Kane died March 6, 1919. He was appointed to the Reserve Force December 28, 1892, and appointed to the Regular Force May 8, 1894; was commended in general orders March 3, 1903. Officer Kane was a good officer, and in his death the department suffered a distinct loss.

STATISTICAL REPORT
OF THE
Lowell Police Department
JANUARY 1, 1919 TO DECEMBER 31, 1919

RECORD OF ARRESTS, 1919

AGAINST PUBLIC ORDER

OFFENCE	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Adultery			4	4		2	2	1	1	2			16
Aiding and abetting soldier in purchase of liquor	18	8		22	5								53
Auto law, violating	5	1	9	14	30	32	8	8	5	16	20	10	158
Bastardy		1	1	3	2	1		2	2	2	5	2	19
Capias	10	7	11	3	9	5	5	6	4	3	8	3	74
Carrying weapons	5	2	5	2		2	1		1	1	3	1	23
City Ordinance, violating	1	1		3	4	1	1	2	1	1	1	1	17
Cruelty to animals			1	2					2	1		1	7
Common victualler unlicensed				1									1
Deserter from U. S. Army	2	1				3	2				1	1	10
Delinquents	21	5	7	8	10	6	22	13	16	12	13	16	149
Disorderly conduct	1												1
Disturbing the peace	2	1	4		2	3			1	1		1	15
Disturbing public meeting			2			2							4
Dog, keeping unlicensed	4		1		1	2							8
Drunkenness	347	286	324	319	264	269	87	182	136	146	89	142	2591
Drug law, violation of		2		1									3
Escaped from prison		1	16			1	1	2	3	1		1	26
False alarm of fire			2										2
Failing to keep matches in metal box							1						1
Fornication	4	23	2	6	10	8	2	5	1	2		6	69
Forgery								1					1
Fugitive from justice		2											2
Gambling		8	1	1			1						11
Hunting law, violation										1	1		2
Idle and disorderly	1	3	3					1		1		1	10
Illegal sale of naphtha											4		4
Indecent exposure		1		1	1	1	2			1	1		8
Interfering with officer								1					1
Insane				1	1	2	3				1	2	10
Keeping disorderly house		3											3
Lewd cohabitation	4	7	5	6	5	4	2	3		2			38
Labor law, violation of								1					1
Lewdness	1	2	1	2	2	1			2				11
Liquor law, violation of			1	1		2	3	2		1	5	4	19
Maintaining gaming resort	1		1										2
Milk law, violation of	1	1	2	1									5
Neglected children	1		4				3			4		3	15
Neglect of family	12	13	17	20	15	13	12	13	14	12	10	10	161
Permitting minor to loiter in pool room	3												3
Peddling unlicensed						1							1
Polygamy									1	1			2
Playing game on Lord's Day								3	1		10	6	20
Present at game on Lord's Day	34	23			13			1	29	20	7		127
Present where gaming implements were found	54	59	66		18	18			10				225
Practising medicine unlicensed			2				1						3
Profanity	2											1	3
Pure food law, violation of	4		2	4				2		6	12	7	37
Riding bicycle on sidewalk								1					1
Safe keeping	71	34	29	12	20	24	10	13	11	16	12	19	271
Sale of cigarettes to minors					1								1
School law, violation of										2	1		3
Sodomy					1								1
Stubbornness	6	4	7	1	3	4	1	3	4	7	6	3	49
Suspicious person	59	59	56	31	14	17	13	12	8	15	2	6	292
Tramps								1					1
Treason										1		2	3
Truants	5	1		3	2	1				1	2	4	19
Vagrants	1	7		1			1				1	2	13
Violation of Immigration Act		1											1
Violation of Weights and Measures Act								1					1
Violation of itinerant vendor law												1	1
Total	680	567	586	473	432	424	186	280	251	279	215	256	4629

AGAINST THE PERSON

OFFENCE	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Assault and battery.....	18	29	22	26	20	17	14	23	17	19	10	7	222
Assault with a dangerous weapon.....								1	1		4		6
Assault felonious.....	2		1	1		1			1			2	8
Assault on an officer.....	1					2	4						7
Manslaughter.....		2		2	3	1	2		3	2	3	2	20
Murder, Attempt.....	1								1				2
Murder.....						1							1
Rape.....		1	1									1	3
Robbery, Attempt.....				1									1
Robbery.....	1	1	3				2	2				1	10
Threats.....	4	3	1	1	2	3	1	1	1	4	2	2	25
Unnatural Act.....					1								1
Total.....	27	36	28	30	27	25	23	27	24	25	19	15	306

AGAINST THE PROPERTY

OFFENCE	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Attempt larcency.....	2		1	1			2			3		2	11
Attempt, breaking and entering	1												1
Breaking and entering.....	18	22	35	7	10	9	9	4	6	4	7	10	141
Fraudulently obtaining money					2			1		1			4
Forgery.....					1								1
Larcency.....	31	33	30	22	20	25	26	27	30	29	22	16	311
Malicious injury to property...		1	1		1	6						1	14
Receiving stolen goods.....		3	3	2	2	1		5		2	1		19
Removing baggage illegally....	1												1
Riding bicycle on sidewalk....									1				1
Riding freight.....					1					1		1	3
Sale of mortgage property.....				1		1			1				3
Suspicion of larcency.....				1			1	3	1		7	2	15
Trespass.....	5	2	5	1			3		5	2			23
Total.....	58	61	75	35	37	42	43	40	46	42	37	32	548

DISTRIBUTION OF OFFENCES ACCORDING TO NATIONALITY

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
United States.....	394	342	339	309	289	279	156	211	178	210	157	162	3026
England.....	14	11	21	16	14	16	10	4	7	5	7	7	132
Ireland.....	106	87	87	72	67	67	24	44	30	31	23	49	687
Scotland.....	5	5	3	5	5	2	1	5		8	1	3	43
British Provinces.....	76	87	80	55	37	63	20	38	43	39	32	36	606
Greece.....	65	59	16	18	27	19	6	9	27	16	17	14	293
Russia.....	53	31	28	39	26	23	22	17	10	20	14	19	302
Turkish Empire.....	6	8	11	1	7	7	4	4	14	4	2	9	77
Miscellaneous.....	46	34	103	23	24	16	9	16	12	13	11	11	318
Total.....	765	664	688	538	496	492	252	348	321	346	264	310	5484

DISTRIBUTION OF OFFENCES ACCORDING TO TRADES AND PROFESSIONS

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Building Trades.....	30	24	40	26	28	27	14	11	12	13	13	18	256
Mechanical Trades.....	44	35	55	40	36	32	18	31	24	36	24	24	399
Mill and Factory.....	198	172	161	112	104	100	68	80	68	75	55	63	1256
Shops and Stores.....	65	75	60	41	64	45	24	31	37	33	38	37	550
Professional.....	1	1	3	5	6	3	3	1	2	4	2		30
Agricultural.....	9	8	3	7	5	7	1	5	6	3	3	3	60
Clothing and Garb.....	2	1			3	1				1	2		10
Agents, etc.....	3	4	1	2	2	9	3	5	5	3	2	4	43
Laborers.....	231	225	230	185	137	160	65	111	87	108	68	85	1692
Service Domestic, etc.....	20	26	30	11	23	34	10	19	22	16	14	12	237
Transportation.....	39	31	34	39	30	28	12	18	22	15	16	15	299
Children.....	47	21	28	17	14	20	27	17	24	28	18	34	295
Soldiers.....	56	24	22	41	24	12	7	16	7	8	5	13	235
Sailors.....				1	3	4			5		1	1	16
Miscellaneous.....	20	18	18	8	16	10		3		2	1		96
None.....			3	3	1						2	1	10
Total.....	765	664	688	538	496	492	252	348	321	346	246	310	5484

DIVISIONAL REPORT
OF THE
Lowell Police Department
JANUARY 1, 1919 TO DECEMBER 1, 1919

MONTHLY REPORT OF PATROLMEN, 1919

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Persons assisted home drunk . . .	28	12	25	21	20	21	24	8	6	6	2	11	184
Persons arrested	316	230	349	260	243	195	89	193	110	140	91	150	2366
Buildings found open and secured	85	72	105	82	75	71	60	75	60	90	91	86	952
Defective streets and sidewalks.	4	3	25	24	17	3	15	9	6	12	9	4	131
Fire alarm given	3	3	1	1	1	3	1	1	1	2	1	6	19
Lost children restored	6	3	18	15	12	10	9	11	8	7	8	7	114
Value of stolen property recovered	\$20.00	\$200.00	\$223.00	\$695.00	\$13.00	\$7.00	\$8.00	\$1471.00	\$43.28	\$220.00	\$1028.75	\$341.00	\$4270.03
Gas lights not burning	143	144	45	32	30	16	17	14	38	67	80	246	372
Electric lights not burning	248	161	240	169	117	91	168	157	174	186	280	289	2280
Teams put up and cared for	3	4	3	1	1	1	4	2	3	2	2	1	18
Obstructions not lighted	2	1	1	5	3	1	1	1	8	9	1	3	42
Obstruction removed	1	1	3	4	4	4	1	1	1	1	2	1	23
Disturbance quelled	23	18	23	36	29	32	25	26	23	24	25	29	313
Sudden death	1	1	2	3	1	1	1	1	1	4	1	3	16
Violation of liquor law			1									2	3

MONTHLY REPORT OF LOCKUP, 1919

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Money taken from prisoners . . .	\$2745.33	\$3976.57	\$3757.73	\$4077.00	\$1697.95	\$1781.75	\$808.14	\$1472.34	\$2388.50	\$2333.43	\$949.22	\$2224.77	28212.73
Defective streets and sidewalks.	4	3	19	25	27	14	14	8	11	16	4	5	150
Obstructions removed from sts.				4		2						3	9
Stores found unlocked	74	88	99	87	99	73	69	85	78	73	78	83	986
Lost children restored to parents				4	7	7				2		1	21
Stray teams found and put up . .		1		1	2	1		2					7

MONTHLY REPORT OF POLICE MATRON OF ARRESTS OF WOMEN, 1918

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Adultery.....			2	2		1	1			1			7
Aiding and abetting a soldier to purchase liquor.....				1		1							1
Assault and battery.....	1		1					1	1				5
Capias.....								1					3
Cruelty to animals.....											1		1
Drunkenness.....	21	18	24	17	22	28	3	9	20	11	5	1	187
Fornication.....	2	11	1	3	5	3	1	3	1	1	1	2	34
Insane.....					1	1	2						6
Larceny.....	2	3	2	1	3	2		2	1	1	5		20
Lewd cohabitation.....		3	5	4	3	1	1	2					22
Lewdness.....	1	3			2	3							9
Non-support.....				1				1					1
Pure food law, violation.....								2					1
Receiving stolen goods.....								3					2
Safe keeping.....	5	5		5	5	7	3	2	1	3		1	38
Stubbornness.....	4	1	2	2				1	1	2	4		-17
Threats.....		1	1										2
Treason.....										1			1
Violation of liquor law.....											1		1
Total.....	36	45	38	36	41	47	12	25	25	21	17	15	358
Minors.....	9	8	5	4	5	3	1	8	2	2	7	1	55
Money taken and returned to prisoners.....	\$38.23	\$41.18	\$174.46	\$163.21	\$227.46	\$116.83	\$4.07	\$16.00	\$95.35	\$20.68	\$28.33	\$21.85	\$947.65

REPORT OF CRIMINAL BUREAU OF INVESTIGATION FOR 1919

January.....	30	\$650.00	\$540.00	\$110.00
February.....	25	780.00	760.00	20.00
March.....	29	755.00	610.00	145.00
April.....	27	805.00	755.00	50.00
May.....	24	590.00	490.00	190.00
June.....	20	740.00	590.00	150.00
July.....	24	690.00	620.00	70.00
August.....	23	585.00	490.00	95.00
September.....	25	795.00	760.00	35.00
October.....	29	680.00	610.00	70.00
November.....	26	825.00	795.00	30.00
December.....	28	755.00	655.00	100.00
Totals.....	310	\$8,650.00	\$7,585.00	\$1,065.00

RECOVERED FOR OTHER CITIES AND TOWNS

Lawrence, Mass.....	\$303.00
Boston, Mass.....	1,200.00
Lynn, Mass.....	150.00
Stoughton, Mass.....	645.00
Ayer, Mass.....	15.00
Westford, Mass.....	1,500.00
U. S. Special Agent.....	250.00
Navy Yard, Charlestown..	75.00
Worcester, Mass.....	900.00
New Bedford, Mass.....	350.00
Cambridge, Mass.....	1,900.00
Sherbrooke, Canada.....	1,200.00
Nashua, N. H.....	45.00
Total.....	\$8,543.00

PRISONERS ARRESTED FOR OTHER CITIES AND TOWNS

Lawrence, Mass.....	5
Waltham, Mass.....	1
Taunton, Mass.....	1
Boston, Mass.....	3
Cambridge, Mass.....	3
Peabody, Mass.....	1
Lynn, Mass.....	4
Gardner, Mass.....	1
Providence, R. I.....	2
Nashua, N. H.....	3
Pawtucket, R. I.....	1
Lewiston, Me.....	1
Willimantic, Conn.....	1

Respectfully submitted,

JAMES BROSNAN,

Captain of Police,

Lowell, Mass.

REPORT OF POLICE SIGNAL SYSTEM

January	37,766	3,806	351	498	427
February	32,927	3,133	305	432	383
March	36,958	3,424	324	439	421
April	35,969	3,280	293	344	323
May	35,879	3,316	267	323	322
June	34,643	3,074	272	329	360
July	37,548	3,263	100	113	128
August	35,787	3,078	170	212	205
September	34,041	3,194	139	200	164
October	37,439	3,610	154	189	205
November	37,651	3,520	94	119	111
December	40,102	3,640	136	153	164
Totals	436,701	40,338	2,605	3,351	3,213

REPORT C

January....
February..
March....
April.....
May.....
June.....
July.....
August...
September
October...
November
December.

Totals

RECO'
CIT

Lawrence
Boston, M
Lynn, Ma
Stoughton
Ayer, Ma
Westford
U. S. Spe
Navy Ya
Worceste
New Bec
Cambrid
Sherbroc
Nashua,

Tot





